Ladera, Adriana 02114769214

MIT Office of Graduate Education

MIT Summer Research Program (MSRP) General 2021

Adriana Ladera
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Submitted: January 11, 2021

Forms

MSRP General Application Cycle & Eligibility

* indicates a required field

1.

I have read the MSRP elgibility criteria and certify that I meet the following REQUIRED eglibility criteria:

Please check all that apply. For more information regarding MSRP Eligibility please visit: https://oge.mit.edu/graddiversity/msrp/eligibility/

I have a minimum 3.5 overall or major GPA (on a 4.0 scale)|I am enrolled full-time in a degree-granting program at a US institution of higher education located in the US or its territories excluding MIT|I am a sophomore, junior, or non-graduating senior; must have 2 academic years of college coursework (not including college credit earned while in high school or its equivalent) and not graduating prior to December 2021|I have a strong interest in pursuing a graduate degree in one of MIT's graduate programs, not including Sloan School of Management|I have a genuine interest in pursuing a career in academic research and/or teaching|I am a U.S. citizen, permanent resident, non-U.S. citizen with DACA, or international student with appropriate visa documents

2.

I have read the MSRP elgibility criteria and certify that I meet one or more of the following criteria:

Please check all that apply. For more information regarding MSRP Eligibility please visit: https://oge.mit.edu/graddiversity/msrp/eligibility/

I have experienced overcoming a significant challenge in my path toward graduate school. (specify below)

2.1. I have experience overcoming the following significant challenge:

Being of a gender or orientation identity historically underrepresented in their graduate field of study

MSRP General Essay Responses

* indicates a required field

1.

Have you participated in a previous research experience at an academic institution and/or research organization?

Yes

1.1.

Describe at least one of the research experiences you have had as an undergraduate, including lab experiences, data compilation and analysis, or other research activities, in detail by answering the following questions:

Where did you conduct research? How long was this research experience? Who was your mentor or supervisor? What was the purpose of the project? What was your specific contribution to the project? Why was it an interesting project? What impact did it have on your scholarly goals? Maximum 500 words

I attended the 2019 MatSE/Physics REU hosted by Penn State University, which ran from May 28 - August 2. Dr. Long-Qing Chen was the Principal Investigator, while Dr. Bo Wang and Dr. Jianjun Wang were my project mentors. My project was to gain insight into how epitaxial strain affected the polarization domain structures in (K(1-x), Na(x))NbO3 (KNN) thin films, which are lead (Pb)-free materials (compared to popular Pb(Zr(x), Ti(1-x))O3, PZT) whose piezoelectric properties could be manipulated to develop environmentally-friendly piezoelectric devices.

I produced phase-field simulations of the polarization domains present in KNN thin films, in which

I varied the epitaxial strain of several simulations by helping to create input files that contained the properties of substrates and thin films. I plotted the produced outputs as polarization domain structures and calculated their domain fraction per structure, documented how epitaxial strain varied the domain fractions, and used the structures to generate and analyze the multi-domain approach to anisotropic misfit strain phase diagrams of KNN.

We discovered that some of the domain structures resembled herringbone patterns in the experimental results of a manuscript published by the Germany IKZ group, and so I continued simulation work to help investigate KNN domain wall arrangements both computationally and experimentally.

My current research project, beginning in February 2020 with Dr. Inna Ponomareva as the Principal Investigator, seeks to discern the structure-property relationship between the presence of polar nanoregions (PNRs) within ferroelectric relaxors and relaxor behavior, as well as provide insight into PNR structure and their intrinsic dynamics.

I first began by creating supervised machine learning (SML) toy models that predicted the phases of a relaxor dataset, Ba(Ti(1-x), Zr(x))O3 (BZT), under varying Zr concentrations and frequencies. To obtain the phases, I determined the phase transition (Curie) temperature, Tc, for all data concentrations and frequencies, and used Tc to obtain the temperatures for each phase class of the SML model.

I then developed a k-means clustering unsupervised learning (UML) model, which is another toy model trained using images of the plotted hysteresis loops from the same BZT dataset. I converted the images into feature vectors that construct the 2D image dataset and performed principle components analysis (PCA) on the dataset. To compare models, I constructed concentration-temperature phase diagrams for actual data and each model's phase predictions. My goal is to prove the grouping functionality of the k-means method using the BZT toy dataset and therefore extend this model to approach the PNR-relaxor question.

Both of my experiences have taught me very valuable technical skills, and helped me grow as a young researcher. I co-authored papers that were published and/or submitted to scientific journals, learned to strategize reading scientific literature, how to present my research, and think analytically and creatively. Most importantly, research inspired me to pursue a Ph.D in Computational Science and Engineering so I could help develop and improve the computational tools used to study the complex systems of the natural sciences.

2.

What are your future educational and career goals, and how does training as a researcher fit with your goals? Describe any contributions you wish to make to your academic discipline and to your community.

Maximum 500 words

Through mentorship from the Principal Investigators I worked with, I learned that interdisciplinary efforts and creativity are essential to a successful project. Varying backgrounds of expertise strengthens the approach to a research solution; my degree pursuit in computer science didn't hinder me from learning to read physics literature and apply basic understanding to my project at Penn State, and similarly, Dr. Ponomareva's Ph.D in Physics was no disadvantage to her contribution of ideas to our machine learning approach in studying ferroelectric relaxors.

Additionally, my time working in various research areas taught me how to ask questions and propose creative approaches beyond the suggestions of my research mentors. I've learned that in research, there is no wrong answer. Everyone, even the Principal Investigators, have no absolute sureness in the success of the problem they are investigating, relying on only prior knowledge built from culminations of past research outcomes and years of degreework. But everyone, even junior research scientists like me, are allowed to ask questions. Now, if I'm given suggestions of how to investigate, I know that it never hurts to also take imaginative approaches beyond the scope of what is being asked, as it may very well end up being significant to finding the solution.

Post-undergraduate school, I plan to obtain my Ph.D in Computational Science and Engineering as a tool for computer-aided discovery, and eventually pursue a career as a research scientist at a national laboratory or as a university research professor, with an emphasis on outreach to students from minority groups. My research interests include computational modeling of physical systems, algorithm design and optimization, and machine learning. More specifically, I would like to help create and improve the computational tools used to study our natural world: to develop and improve machine learning capabilities in predicting patterns in experimentally or computationally-obtained data, as well as help to optimize the efficiency and performance of the algorithms we use to investigate and model complex systems.

Finally, as a bisexual Filipina woman, I would also like to strongly promote diversity in STEM for my communities by creating a safe space for women, people of color, nonbinary people and other LGBTQ+ identities, and other underrepresented groups. I believe that this begins with outreach, and so I would like to help stimulate a passion in science for young students of groups that tend to appear less frequently in STEM fields through voluntary "STEM teaching days" at primary schools, as well as inviting high school students to work or shadow me and my colleagues for a short period of time according to the students' field of interest.

3.

Please explain how you have demonstrated a commitment to diversity in the academic, professional, or civic realm through their work experience, volunteer engagement, or leadership of student or community organizations. Additionally, describe how you will advance diversity in the future. By diversity, we mean efforts to reduce social, educational, or economic disparities based on race, ethnicity, or gender, or to improve race relations in the United States.

Maximum 500 words

I am a volunteer for DoSomething.org, in which I participate in campaigns based on my social, political, and environmental issues of interest. The causes that I have been or am currently involved in are racial justice, LGBTQ+ and gender rights, environment, and homelessness. I am also part of the USF Global Citizens Project, which seeks to encourage its members to become aware of the world, environment, and people around us by encouraging us to learn about other cultures, social issues outside of the US, and understand our place in the world.

I have also just recently been asked to be the Vice President of External Affairs for Women in Computer Science and Engineering (WICSE) at USF. I'm hoping that I can use this newfound position of leadership to cultivate opportunities to support women, especially women of color, and women from LGBTQ+ and other underrepresented groups in STEM, and contribute to the effort to reduce and eventually eliminate the gender-inequality barrier that unfortunately persists in the STEM field.

I'm hoping that I can one day be in a position where I can establish a safe space for people of all underrepresented groups and from disadvantaged backgrounds. Certainly, that starts in small steps, so I'd first like to begin by starting where the representation gap begins: youth. Ideally, I would like to establish a multidisciplinary nonprofit organization that, with parental consent, seeks to make children aware of the implicit biases that develop when they are young, as well as provide free tutoring and financial support for students in need.

I'd like to hold outreach through visiting K-12 schools and hosting "STEM days" where the next generation of scientists can be inspired to pursue a career in STEM. At the end of each visit, I'd also like to spend time explaining to students the STEM representation gap, and teach young children of groups that are historically underrepresented that they can perform just as well as their peers of majority groups with a proper environment that nurtures everyone's abilities. I would then conclude by saying that children from both marginalized and non-marginalized groups, if they decide to pursue a STEM career, should work together to help reduce the representation gap that pervades the STEM field today. I would also like to invite interested high school and undergraduate students of underrepresented groups to work with my colleagues and I so they can grasp the STEM environment.

I would also like to join or help co-found an organization that seeks to reduce the representation inequalities in STEM. Scientists from marginalized groups sometimes face workplace discrimination, lack of respect for their identity, and a plethora of other challenges, especially when personal identities are pushed aside in the pursuit of scientific solutions. Research creativity tends to be lower when the scientist feels isolated, and so I would like to help create a community in which people of minority groups in STEM can connect with people of their own and others' identities and share their ideas with each other.

4. What are your top 3 personal, professional, and/or academic accomplishments?

Please be specific in your responses. Maximum 250 words

My first accomplishment is a set of tangible academic ones: I managed to become a co-author of my first research papers on computational studies of ferroelectric and ferroelectric relaxor materials that were either published or submitted to the Journal of Applied Physics, Physical Review B, and APL Materials. I also was nominated by Dr. Sayandeb Basu, the USF Goldwater representative, to apply for the 2021 Goldwater Scholarship with emphasis on my research with Dr. Ponomareva and Dr. Chen's group.

I've also seen myself grow into a research scientist over the years. I've learned to grasp physics literature far beyond what I'm taught in the classroom, which I never thought I'd be able to fully understand when I picked up my first paper on transition metal dichalcogenides as a freshman. I learned to analyze results and pursue innovative research directions knowing that there is no objectively correct answer in research; anything and everything is possible until the most promising solution presents itself.

My most significant personal achievement is learning to fully love and accept myself for who I am. Being raised under strict Filipino Christian ideals, I was taught to believe in the sin of homosexuality. But after many years of lying to myself about my sapphic identity, I realize that nothing is more important than living life true to oneself. It may be a while before my parents accept my bisexuality once I come out, but what is most important is that I've finally learned to accept myself.

5.

OPTIONAL: We acknowledge that every applicant has unique life experiences that may not be captured in the above essay questions. The selection committee is open to learning more about any extenuating circumstances an applicant has encountered throughout their journey.

If applicable, please describe any challenges that you may have overcome due to limited access to research and/or graduate preparatory opportunities at your home institution or obstacles concerning your economic, social or educational experiences. Maximum 250 words

COVID-19 set off a collection of struggles for me that dwindled my motivation to thrive academically. Setting off quarantine on bad footing, I had just broken up with my boyfriend, and in the following weeks was greeted with the fact that the ICU unit where my mother worked would be admitting their first COVID-19 patient. In the weeks following the breakup, however, I finally began to admit to myself that I was bisexual, but also had to accept the possibility that coming out to my very religious parents could result in a dramatic rift in my relationship with them.

I entered summer trying to re-establish classes and research as the ideal distraction from my personal issues. Seeing police brutality incidents against Black people and BLM allies at protests, heightened racism blaming Asians for "starting COVID", and the rising number of COVID cases in news and social media, however, was even more disheartening. I grew discouraged trying to

engage in debates that proved pointless when the opposing viewpoint entered the argument closed-mindedly, and realized that it was impossible to convince every individual to be a good person for the sake of community.

As of now I'm grateful that my parents are still employed as nurses, but the patient overload during COVID-19 and watching how such stress is slowly encapsulating my parents in the form of coping mechanisms-- my father's slow descent back into alcoholism and my mother's tendency to shut away her problems-- still plagues me with worry.

Research Preferences

***** indicates a required field

Please indicate your top 3 MIT research preferences (department, research area, and faculty mentor). Visit the MSRP Interested Faculty page to learn about potential research projects: bit.ly/msrpfaculty. Additionally, please use departmental websites to find faculty not listed on the MSRP Interested Faculty webpage. If admitted into MSRP, we will do our best to place you with one of your choices or in a related research area. Please be aware that we cannot guarantee faculty availability.

1. Please list up to five keywords that best describe your research interests

machine learning, computational science, computational, modeling, methods

2. Department 1

Electrical Engineering and Computer Science

2.1. Research Area 1

Theoretical Computer Science

3. Faculty 1 First Name

Jacob

4. Faculty 1 Last Name

White

5. Faculty 1 Email Address

white@mit.edu

6.

In a few brief sentences (2-4) please explain why you are interested in this faculty member's lab or research group.

I don't have much experience specifically in the optimization of algorithms or the mathematical techniques used to solve or develop such algorithms. Given that I seek to pursue a Ph.D in Computational Science and Engineering, I think it would be beneficial for me to begin to learn how to conduct research in algorithm design and optimization, and I think Dr. White and Dr. Daniel's lab would best suit my progress in this research direction. I would like to participate in their group's "Techniques for Coupled Optimization and Simulation" project as it appears to be most ideal for the skills I would like to obtain.

7. Department 2

Chemical Engineering

7.1. Research Area 2

Catalysis and Chemical Kinetics

8. Faculty 2 First Name

Heather

9. Faculty 2 Last Name

Kulik

10. Faculty 2 Email Address

hjkulik@mit.edu

11.

In a few brief sentences (2-4) please explain why you would like to work in this faculty member's lab or research group.

I really like (and am familiar with) the idea of using computational approaches to predict the behavior of materials. I would like to help contribute to the development of machine learning models and computational techniques that would be used to carry out such studies. Dr. Kulik's "Predicting simulation outcomes with ML" and "Machine learning spin-state-dependent catalysis" projects are attractive to me primarily due to their utilization of ML as a predictive tool for discovery of new molecules and materials and energy predictions.

12. Department 3

Chemical Engineering

12.1. Research Area 3

Catalysis and Chemical Kinetics

13. Faculty 3 First Name

William

14. Faculty 3 Last Name

Green

15. Faculty 3 Email Address

whgreen@mit.edu

16.
In a few brief sentences (2-4) please explain why you would like to work in this faculty member's lab or research group.

I would like to help in developing and/or improving the computational tools that are used to predict the kinetics of chemical reactions. Specifically, I am interested in Dr. Green's "Computer Assisted Organic Synthesis Planning" project, which uses the intersection of machine learning and computational chemistry to study chemical syntheses, and the "Rapid Development of Biofuel Models for Screening of Advanced Fuels" project in the search for sustainable fuel approaches.

MSRP General Educational Information

* indicates a required field

1. High School (Secondary) Information

H.S. Name	H.S. City	H.S. State	H.S. Country
Largo High School	Largo	Florida	Pinellas County

2. Current Undergraduate Institution

Please spell out the full name of your school (i.e. Massachusetts Institute of Technology instead of MIT). If you attend an institution with multiple locations, please spell out the school followed by the location, i.e. University of California, Los Angeles, instead of UCLA.

University of South Florida, Tampa

3. Current Undergraduate Institution Location

Please select the location of your current undergraduate institution.

FL - Florida

4. Undergraduate Institution's Academic Term System

Semester

5.
Undergraduate Institution Classification: Is your undergraduate institution classified as a "minority-serving" institution? If so, please check the appropriate option beow.

For more information, please visit the U.S. Department of Education at https://www2.ed.gov/about/offices/list/ocr/edlite-minorityinst.html

6. Current Year in School

Please select your current year at your undergraduate institution. If you have credits that have advanced your standing, please select the level you would be WITHOUT them.

**MSRP only admits current sophomores, juniors and non-graduating seniors (who are not graduating prior to December 2021).

Junior (Year 3)

7. Current Undergraduate Major(s)

Please provide the following information for your current undergraduate institution here.

**If you have more than one major, please enter each additional major on a new line. Please do not include minors.

**Please enter your Start Date and Expected Graduation Date in MM/YYYY format.

Major	Start Date	Expected Grad Date
Computer Science	08/2018	05/2022

8. Minor

Physics

9.

Major 1 GPA as listed on transcripts. If your major GPA is not calculated, please calculate.

**Please enter all GPA information on a 4.0 scale.

3.65

10. Major 2 GPA

If you have more than one major, please list the 2nd major GPA here.

**Please enter all GPA information on a 4.0 scale.

11. Undergrad Cumulative GPA

**Please enter all GPA information on a 4.0 scale.

3.67

12. Have you attended more than one undergraduate institution?

No

13. Program Membership

Please indicate your participation in any of the following academic and/or scholarship programs listed below. If admitted, we will request documentation of membership.

14. Future Degree Objective

Please select the degree you plan to pursue.

PhD

15.

OPTIONAL: Please provide any additional information you would like the review committee to know about your degree program, institution, or grades. (Maximum 100 words)

For example, you may share that you are enrolled in a partner program between institutions, why you had a particular trend in grades, etc.

Fall 2020 was my lowest semester. I ruminated coming out to my parents, which would potentially sever the relationship I had with them. At the same time, work stress from nursing patients during COVID-19 caused my dad's physical and mom's mental health to decline, and their refusal to acknowledge it was incredibly troubling. Consequently, my midterm grades dropped below passing, I fell behind in my SOFWERX internship and TA grading, and Dr. Ponomareva and Dr. Basu, noticing my change in demeanor, even suggested that I take a break from research and Goldwater submission until my mental health recuperated.

MSRP General Contact Information

* indicates a required field

1. Legal First Name

Please provide your legal name as listed on a government-issued identification (driver's license, passport, birth certificate, etc.)

Adriana

2. Middle Initial

J

3. Legal Last Name(s)

Please provide your legal name as listed on a government-issued identification (driver's license, passport, birth certificate, etc.)

Ladera

4. Preferred Pronouns

ex. she/her/hers, they/their, he/him/his

she/her/hers

5. Preferred First Name (if applicable)

If you prefer to be addressed by a name other than the first name you provided, please share that name here.

6. Date of Birth

05/12/2000

7. Email Address

MSRP correspondence will be sent to this address.

adrianalader@usf.edu

8. Retype Email Address

adrianalader@usf.edu

9. Phone Number

(727) 580-1162

10. Current Mailing Address

Line 1

3600 E Fletcher Ave. Apt. 548D

11. Current Mailing Address

Line 2

12. Current Mailing Address

City

Tampa

13. Current Mailing Address

State or Territory

FL - Florida

14. Current Mailing Address

Zip Code

33613

15. Home (Permanent) Address Type

Domestic

15.1. Home (Permanent) Address

Line 1, Line 2, City, State, Zip code

11152 62nd St. N, Pinellas Park, FL, 33782

16. Webpage URL

17. Skype Username

18. LinkedIn URL

https://www.linkedin.com/in/adriana-ladera-84b18a171/

19. Facebook URL

MSRP General Biographical Information

* indicates a required field

MIT is a diverse and supportive community committed to the MIT Nondiscrimination and Equal Opportunity policies (link: http://web.mit.edu/policies/7/7.1.html).

1. Citizenship

U.S. Citizen

1.1. United States Armed Forces Status

No relationship

2.
Race and Ethnicity: I consider myself to belong to the following ethnic group(s): Hispanic (including Spain) or Latino?

No

3.
Regardless of your answer to the prior question, please check one or more of the following groups in which you consider yourself to be a member.

I consider myself to belong to the following ethnic group(s) (check all that apply):

Asian (including Indian subcontinent and Philippines)

3.1. Which best describes your background?

Philippines

4. Legal sex

Please indicate your legal sex as defined by a government issued document.

Female

5.
Cultural Background and Gender Identity: At MIT, we know that people are more than just a set of grades and scores on a screen. So we use a holistic admissions process which entails understanding as much about you as we can, and the context from which you have been shaped, both as a person and a student. The information from the application provides the pieces that help us to create a picture of you.

Please tell us more about your cultural background and identity in the space below (100 word limit).

I am Filipina by blood and was born in Wellington, New Zealand. I never got well-acquainted with the area, however, as my family moved to the United States when I was three, and I was raised

into the marriage of cultures that was the Filipino household and the American education. I grew up learning Ilocano and English simultaneously, followed by French at age eleven. My parents divorced that same year I was baguettified, and with little relationship models and internalized homophobia, I battled with my sexuality for a while, but I now proudly identify as a cisgender, bisexual woman.

6. First language spoken at home (describing the language(s) spoken in your home)

English and Asian language group

MSRP General Demographic Information

***** indicates a required field

MIT is a diverse and supportive community committed to the MIT Nondiscrimination and Equal Opportunity policies (link: http://web.mit.edu/policies/7/7.1.html).

The following questions are being asked to better understand who is applying to the MIT Summer Research Program - General (MSRP) as well as to share campus resources to support admitted students. Financial need has no bearing on admissions decisions; there is no cost to participate in MSRP.

1. Do you consider yourself to have a protected disability?

No

2.
Answering this optional question will in no way impact your application: How would you describe your sexual orientation? (Check all that apply)

If you are interested in learning about the LBGTQ community and resources at MIT, please feel free to contact the lbgt@MIT Office at lbgt@mit.edu, 617-253-5440, or http://web.mit.edu/lbgt.

Pansexual / Bisexual

3. Gender Identity

Please check all that apply.

Female

4. Religious preference or affiliation

Baptist (SBC, CB, and other)

5. Parent 1 / Guardian / Mother's highest level of education completed

Please fill out the information below so we can get to know more about your family. You should think of “parent” as whomever you consider to be your parent, even if they are not biologically related. Select the answer that best describes their highest level of education completed.

Four-year college graduate

5.1. College or University Name, Degree, Year

For example, Massachusetts Institute of Technology, Bachelor of Science (SB), 1986

University of the East, Bachelor of Science (SB), 1993

6. Parent 1 Marital Status

Divorce

7. Parent 1 Occupation and Employer

ICU and Charge Nurse, Mease Countryside Hospital

8. Parent 2 / Guardian / Father's highest level of education completed

Please fill out the information below so we can get to know more about your family. You should think of “parent” as whomever you consider to be your parent, even if they are not biologically related. Select the answer that best describes their highest level of education completed.

Four-year college graduate

8.1. College or University Name, Degree, Year

For example, Massachusetts Institute of Technology, Bachelor of Science (SB), 1986

St. Jude College, Bachelor of Science (SB), 1992

9. Parent 2 Marital Status

Divorce

10. Parent 2 Occupation and Employer (Duplicate)

Registered Nurse, Northside Hospital

11. What is your family's household size?

Please add: Yourself + your parent(s)/guardian(s) + the number of other children (other than yourself) who receive more than half of their support from your parent(s) + the number of people who are not your parents' children but who live with your parents.

5

12. What is your family's annual income in U.S. Dollars?

Please combine, if applicable, your parents/guardians' total income earned from working in the 2019 calendar year.

$150,000 to $199,999

13. Are you a Pell Grant recipient?

(U.S. Citizen & Permanent Resident Only.) If admitted to MSRP, we will ask you to provide documentation.

No

MSRP General Additional Information

***** indicates a required field

1.
In the event you are not selected for MSRP, or we become aware of a promising placement, may we submit your application to another MIT department or program?

Yes

2.
Have you APPLIED to the MIT CONVERGE Graduate Preview Weekend or MIT Summer Research Program - General (MSRP) before?

No

3. Have you PARTICIPATED in MSRP General or CONVERGE before?

No

4.

Have you participated in any other MIT on-campus summer research or visitation program(s)?

For example, MSRP Biology and Neurosciences, Media Lab Open House, MIT ACCESS, HST Summer Institute, AMGEN, MITES, MOSTEC, etc.

No

5. Have you ever participated in a non-MIT summer research program?

Yes

5.1.

Please list the research program(s), the year(s) participated, and your research area(s).

I attended the 2019 Interdisciplinary Material Science and Physics REU hosted by the Pennsylvania State University, in which I worked in the Dept. of Materials Science and Engineering under Dr. Long-Qing Chen. My specific research area was computational material science, in which I aimed to gain insight into the epitaxial misfit strain effects on the piezoelectric properties of potassium sodium niobate (KNN) thin films via studying the phase-field simulations of their polarization domain structures under varying strains.

6. How did you hear about MIT Summer Research Program - General?

Please select all that apply.

Online via MIT website

6.1. Personal Referral's Name, Instiutiton, and Email Address

For example, Dr. Tim Beaver, Massachusetts Institute of Technology, msrp@mit.edu

7.

Please list any commitments that may conflict with MSRP General program dates: Sunday, June 6, 2021 – Saturday, August 7, 2021. Enter "N/A" if there are no conflicts.

MSRP General requires students to be available for the entire 9-week duration of the program. Academic or family obligations may be excused with advance notice. Conflicting exams may be proctored at MIT.

N/A

MSRP General Application Certification

* indicates a required field

1.

By signing my name below, I certify that I have completed all the applicable spaces on this application and I affirm their accuracy. I understand that any misrepresentation of the facts on this form may be cause for refusal or cancellation of admission to the MIT Summer Research Program - General (MSRP).

Please sign your name as /First Name Last Name/. For example, /Tim Beaver/

/Adriana Ladera/

Ladera, Adriana

02114769214

ATTACHMENTS

Resume or CV

Two page limit. Please format your resume/CV: Lastname_FirstName_Resume

Please tailor your resume/CV to include relevant information for the selection committee including but not limited to: GPA (major and cumulative), research experience and/or projects, research presentations and/or publications (including pending), relevant honors, awards, or scholarships, conference participation, technical skills, industry experience, clubs or organizations (indicate leadership roles where applicable), service activities related to your academic pursuits, links to social media portfolio, and any self-reported coursework certificates, if applicable.

Ladera_Adriana_Resume.pdf

Unofficial Transcript for CURRENT Institution

Please upload your transcript from your CURRENT INSTITUTION here. This transcript must list your Fall 2020 classes (no grades needed). Please save the file as: LastName_FirstName_Transcript (ex. Beaver_Tim_Transcript)

The file must be legible and must include proof that it is from your academic institution (whether it is a scanned copy of your transcript or saved from an online view).

*NOTE: If admitted, you will be required to submit an official transcript.

1AB7317511.pdf

Unofficial Transcript for Other Institution

If you have attended more than one institution upload all prior transcripts from your PREVIOUS INSTITUTION(s) here combined as one PDF file. Please save the file as: LastName_FirstName_TranscriptOther. (ex. Beaver_Tim_TranscriptOther)

The file must be legible and must include proof that it is from your academic institution (whether it is a scanned copy of your transcript or saved from an online view).

*NOTE: If admitted, you will be required to submit official transcript(s).

[no file]

Ladera, Adriana 02114769214

REFERENCES

Sayandeb Basu

Dr. / Mr.

USF Honors College

sayandeb@honors.usf.edu

813 974 6995

Goldwater Mentor / Research Mentor

Completed on January 10, 2021

Waived right to review

Long-Qing Chen

Professor

Penn State University

lqc3@psu.edu

8147773442

Research Advisor

Completed on January 9, 2021

Waived right to review

Inna Ponomareva

Dr. / Ms.

Dept. of Physics, University of South Florida

iponomar@usf.edu

research mentor

Completed on January 7, 2021

Waived right to review

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