

NIVAIR H. GABRIEL

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- EDUCATION** **Massachusetts Institute of Technology** – Cambridge, MA August 2004 – present
Candidate for Bachelor of Science in Aerospace Engineering, 2008 Cumulative GPA: 3.5/5.0
Relevant Coursework: Solid State Chemistry, Aerospace Engineering and Design, Special Problems in Materials Science and Engineering, Unified Engineering, Thermal Energy, Principles of Automatic Control, Dynamics, Propulsion Systems
- EXPERIENCE**
- Akustica, Inc.** – Pittsburgh, PA June 2006 – August 2006
- Wrote MATLAB code to integrate acoustics package models and MEMS models into seamless digital microphone model
 - Developed code to create SmartSPICE equivalent circuit representation of MATLAB microphone model
 - Produced SmartSPICE frequency response and noise response for model components
- Unified Engineering Flight Competition** – Cambridge, MA February 2006 – May 2006
- Performed multivariable analysis of design factors involved in constructing a large-scale remote-controlled airplane (1-meter fuselage, Speed-280 motor)
 - Designed and constructed tail surfaces, wings, fuselage, motor mount, and landing gear for remote-controlled model airplane
 - Piloted remote-controlled airplane for five-minute skilled flight
- Engine Design Challenge** – Cambridge, MA February 2006 – April 2006
- Worked in a team of 5 to design a thermodynamic cycle for a gas turbine engine
 - Modified standard engine cycle using multivariable analysis of design parameters in MATLAB, with the goal of producing the lowest possible specific fuel consumption
 - Presented results to General Electric Aircraft Engines in 20-minute talk
 - Wrote 20-page final design summary, analytical report, and contribution overview
- Chemistry Curricular Research** – Cambridge, MA March 2005 – October 2005
- Investigated fundamental papers in physics and chemistry, including Nobel lectures of Bohr, de Broglie, Roentgen, Bragg
 - Prepared monthly problem sets for required freshman chemistry class with conceptual questions on fundamental papers and basic ideas
 - Coordinated recitation to teach library research skills to freshmen
- ACTIVITIES**
- The Tech, Arts Editor and Staff Writer** – Cambridge, MA December 2004 – present
- Supervise editorial content in Arts section of MIT's student newspaper
 - Write reviews for on- and off-campus theater, film, and musical events
- French House, Vice President** – Cambridge, MA April 2006 – present
- Supervise housing assignments and house maintenance for cultural living group
- AWARDS**
- Ilona Karmel Writing Prizes** – Cambridge, MA May 2005
Ellen King Prize for Freshman Writing, second place for 1400-word essay
- National Merit Scholar** – Pittsburgh, PA June 2004
Achieved designation after graduating from high school in 3 years with a 4.0/4.0 GPA
- SKILLS**
- Programming: HTML, CSS, Ada, LATEX, basic Java
Software: Microsoft Office, MATLAB, Adobe Photoshop, SmartSPICE
- INTERESTS**
- Freelance writing (published 6+ book reviews and 2+ feature articles and interviews in *Pittsburgh Magazine* and *Earthling Magazine*), photography, maintaining a personal website