

CATHERINE JENKINS

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<http://necromancer.mit.edu/~raven/resume.html>

- Objective** Entry-level position in metal refinement, thin film metallurgy, or structural concrete applications.
- Experience** **June–August 2002** *Cambridge, United Kingdom*
Project Student under Dr Milo Shaffer in the Polymer Research Laboratory at the University of Cambridge. Fabrication and electrical and mechanical characterization of carbon nanotube composites. Improved polymer grafting techniques and composite processing methods.
- March 2001–present** *Cambridge, MA*
Paul E Gray Undergraduate Research Opportunity (UROP) Fellow under R.C. O’Handley in the MIT Thin Films Magnetism Lab, surveying twin boundary properties in ferromagnetic shape memory alloys. Mechanical characterization of FSMA-polymer composites with specially designed equipment; machining of custom laboratory components; circuit building and design. Constructed and tested a pulse circuit apparatus to apply an alternating magnetic field to adjacent single crystals in order to prove the existence of available energy after field-actuated twin motion.
- May 2000–September 2000** *Cambridge, MA*
UROP under Professor John Edmond in the Earth, Atmospheric, and Planetary Sciences Lab. Water sample analysis, chemical preparation of specimens acquired in the Yellow River Basin of China.
- Education** **Massachusetts Institute of Technology, Class of 2003**
Fourth-year candidate for a Bachelor of Science in the Department of Materials Science and Engineering. Projected date of graduation: December 2003. GPA 4.4/5.0.
- Relevant Classes:* Solid State Chemistry, Thermodynamics of Materials, Structure of Materials, Mechanics of Materials, Physical Chemistry, Chemical Physics, Magnetic Materials, Nanomechanics of Biomaterials, Materials Structure Laboratory, Materials Processing Laboratory, Physical Metallurgy, Transport Phenomena in Materials, Differential Equations, Numerical Methods.
- State College Area High School, Class of 1999**
Rotary Club Youth Exchange Student 1997-8, Czech Republic. Penn State University Fencing Team. AP Scholar. CTY, Paleobiology. Employee, Webster’s Bookstore/Café, barista and librarian.
- Skills**
–Proficient in operation of SEM, torque magnetometer, induction furnace, FTIR, VSM, XRD.
–Familiar with AFM, ellipsometer, chemical vapor deposition, EPMA, TEM.
–Macintosh, UNIX-based, and WindowsNT/9x OS’s. Maintenance of RedHat 6.2 and 7.0-3 systems.
–HTML, LaTeX
–Microsoft Office, AbiWord, FrameMaker.
–C, MATLAB
–Working knowledge of spoken/written Czech. Three semesters university-level Spanish.
–Passed safety tests set by Chemical Hygiene Office/Radiation Protection Office.
–Forging, arc welding, investment casting.
- Publications** Abstract accepted for Fal 2002 Materials Research Society conference in Boston, MA.
Vibration Damping in Shape Memory Alloy-Polymer Composites, R.H. Ivester, C.A. Jenkins. Invited in the ‘MIT Undergraduate Research Journal,’ Spring 2002.
Vibration Damping in Ni-Mn-Ga Polymer Composites, J Feuchtwanger, R.H. Ivester, C.A. Jenkins, R.C. O’Handley, S.M. Allen. International Conference on Martensitic Transitions, June 2002.
- Interests and Activities**
–MIT Varsity Pistol Team
–Manager, MIT Student Coffeehouse
–Officer, Campus Crusade for Cthulhu
–Invited Participant, College Industry Conference 2002 by the Foundry Education Fellowship
–Technical theater: member, International Thespian Society.
–Wilderness First Responder Certification.
–Transparent watercolor, ceramics, figure drawing