Marc A. Millstone

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Objective

To utilize my mathematical knowledge in an exciting and challenging research environment, with preference to the fields of robotics, vision, control and applied mathematics

Education

◇ **University of Pennsylvania (2000-2004)**, Philadelphia, PA

- BSE: Mathematics, Computer Science and Engineering
- Minor: Mechanical Engineering
- GPA: 3.48/4.0

Research and Work experience

◇ **Research**, General Robotics, Automation, Sensing and Perception Lab (2001-present)
Computer and Information Science Department, University of Pennsylvania

- Performing independent research with computational geometry techniques for Simultaneous Localization and Mapping (SLAM)
- Working with the BioComputation Group in integrating System Biological Markup Language with Charon, a programming language for simulating hybrid systems
- Performing research to realistically simulate virtual, non-invasive surgeries and cell manipulation with the aid of a haptic control unit.

◇ **Teaching Assistant**, Engineering and Applied Science(EAS) 101 (Fall 2002)

- Led lectures on CAD/CAM, graded papers and reports

◇ **System Analyst**, Wharton Research Data Services (WRDS) (2000-2001)
Wharton School of Business, University of Pennsylvania

- Optimized and enhanced current Wharton Research and Data Services(WRDS) system

◇ **Junior System Engineer**, AverStar, Inc.(1999-2000)
NASA IV&V Facility, Fairmont, WV

- Aided in performing verification and validation for the International Space Station
- Gained insight into engineering protocols and conventions, while learning the necessary skills to work in a dynamic team environment

Skills

◇ C/C++, Matlab, Maple, Java, Perl, LaTeX

Interests

◇ President of the Penn Cycling Team (2001-present), avid road cyclist

◇ Editor of PennScience, a multidisciplinary, undergraduate research journal

◇ Classical and Jazz saxophonist

◇ Member of the Science and Technology Wing, a living and learning programming at Penn.

Classes

◇ Relevant class experience through Spring 2003

- Math and Computer Science: Advanced Linear Algebra, Complex and Fourier Analysis, Differential Equations, Analysis, Abstract Algebra, Theory of Computation, Algorithms, Operating Systems, Computational Geometry
- Robotics: Special Topics in Robotics and Animation, Robotics and Machine Perception, Linear Systems Theory, Real-time Image Processing for Robotic Systems