

Pranjal Vachaspati

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Address

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OBJECTIVE

Research internship in areas including but not limited to machine learning, high performance computing, and applied physics

EDUCATION

MIT, Cambridge, MA (*B.S. in Physics*)
Princeton University, Princeton, NJ

Class of 2014 (Expected)
Jan 2009 - May 2010

PROFESSIONAL EXPERIENCE

Oblong Industries

Software Development Intern

Summer 2012
Los Angeles, CA

- Integrated asset importation support into OpenGL spatial environment framework
- Developed mobile applications for gestural control of 3D spatial environments

MIT CSAIL, Programming Languages and Verification Group

UROP for Professor Adam Chlipala

Fall 2011
Cambridge, MA

- Created applications and libraries for Ur/Web, a strongly typed functional language for the web supporting advanced metaprogramming techniques

Discovery Engine

Software Development Intern

Summer 2011
San Francisco, CA

- Developed infrastructure for general purpose web search and large-scale data manipulation, network filesystems, and compiler tools.
- Gained expertise in distributed systems, tools for working on large projects, and API design

Neuvo Sensible Technologies

Electronics and Software Produce Engineer

Fal 2010 - Spring 2011
Cambridge, MA

- Developed hardware and software to enable RFID usage in Indian agricultural sector and worked with business development team to explore new opportunities for RFID technologies in various international markets.

Princeton University Department of Physics

Research Assistant for Professor Michael Romalis

Summer 2009 - Summer 2010
Princeton, NJ

- Investigated the use of optical multipass cells to improve the sensitivity of atomic magnetometers
- S. Li, P. Vachaspati, D. Sheng, N. Dural, M. V. Romalis (2011). Very large optical rotation generated by Rb vapor in a multi-pass cell. Phys. Rev. A 84, 061403(R) (2011)

SKILLS AND INTERESTS

Coursework - Computer Science: Computer Vision, Machine Learning, Systems Engineering, Computer Architecture, Complexity Theory, Interactive Theorem Proving, Advanced Algorithms and Data Structures

Coursework - Physics: Junior Lab, Quantum Mechanics, Statistical Mechanics & Thermodynamics, Special Relativity, Waves, Electricity and Magnetism

Languages: C++, C, Python, Mathematica, Java, Haskell, Lex/Flex, Yacc/Bison, Coq, Ur/Web, L^AT_EX, English, Hindi

Tools: Git, Emacs, Linux/Bash, GCC, GDB, Eclipse

Computer Science Interests: Machine Learning, Distributed systems, Performance Engineering, Functional Programming, Systems development

Electronics: Microcontroller (AVR) development, PCB design and layout, RFID systems, USB development, and digital electronics

OTHER INTERESTS AND ACTIVITIES

Watching politics, reading books, building things (usually software, sometimes electronics, occasionally physical things), listening to (and recently making!) music