Peter J. Karalekas

759 Middlefield Rd Apt 5 • Palo Alto, CA 94301
pkaralekas@me.com • (239) 248-5385

Education

Yale University, New Haven, CT, Graduated May 2015
Bachelor of Science, Physics and Computer Science (Double Major) – Phi Beta Kappa, Magna Cum Laude – GPA: 3.9
Selected Coursework: Systems Programming & Computer Organization, Data Structures & Programming Techniques, Design & Analysis of Algorithms, Cryptography & Computer Security, Basic Quantum Mechanics, Quantum & Nanoscale Physics

Phillips Exeter Academy, Exeter, NH, Graduated June 2011
Diploma, Cum Laude, Highest Honors, Harvard Book Prize for "excellence in scholarship and high character," Calculus Prize
Testing: National Merit Finalist, AP Scholar with Distinction – SAT: Math 800, Reading 740, Writing 730, Cumulative: 2270

Research Experience

Schoelkopf Lab, *Senior Thesis Research Assistant*, New Haven, CT, August 2014-June 2015 (http://www.eng.yale.edu/rslab/)
- Designed quantum algorithms for qubit control calibration for my physics and computer science senior thesis
- Researched under Robert Schoelkopf, a leader in quantum computing and co-inventor of circuit quantum electrodynamics
- Developed quantum simulations using the Quantum Toolbox in Python (QuTiP) and other scientific computing methods
- Built a library in Python for performing randomized benchmarking simulations and experiments on physical qubits

Relativistic Heavy Ion Group, *Research Assistant*, New Haven, CT, June 2012-August 2012 (http://rhig.physics.yale.edu/)
- Wrote a 40-page research proposal on a new state of matter discovered at CERN called the "quark-gluon plasma"
- Designed and programmed virtual particle accelerators in C++ to model and investigate the new state of matter
- Executed virtual particle collisions using the ROOT data analysis framework to search for systematic sources of error

Work Experience

Oracle – Fusion Purchasing, *Software Engineer*, Redwood City, CA, August 2015-Present
- Developing enterprise web applications in Java, SQL, and XML to streamline e-commerce business processes
- Implemented an autosuggest and keyword search feature to enhance customer interaction with purchase orders

J.P. Morgan – Financial Institutions Group, *Investment Banking Summer Analyst*, New York, June 2014-August 2014
- Built a rich suite of financial modeling, accounting, and general technical skills during the week-long training program
- Staffed on major deals in the banking space to better understand how businesses make important financial decisions
- Created a merger model and pitch book for the final project and presented it to a panel of junior and senior bankers

Fidelity Worldwide Investment – Equity Trading, *Summer Quantitative Analyst*, Hong Kong, June 2013-August 2013
- Collaborated with the equity trading floor to brainstorm questions and develop avenues for quantitative research
- Designed and programmed a rich database in MATLAB that marries Fidelity's third-party and internal datasets
- Developed functions in MATLAB to perform visualization and analysis on the newly-created database

Leadership Experience / Extracurriculars

Inner City Lacrosse Non-Profit, *Yale Administrative Liaison*, New Haven, CT, August 2012-June 2015
- Helped start Inner City Lacrosse with founder Michael Gary (Director of Admissions, Phillips Exeter Academy)
- Provide inner-city New Haven middle-school students with free access to lacrosse equipment
- Organize weekly volunteer participation of members of the Yale men's and women's varsity lacrosse teams

Yale University Heavyweight Crew, *Varsity Rower,* New Haven, CT, August 2011-April 2012

Skills / Interests

Programming: *Proficiency:* Python, Java, C – *Familiarity:* Bash, C++, SQL, XML, HTML, CSS, LaTeX, MATLAB, R, Scheme
Computer: Git, Vim, Linux, QuTiP, Microsoft Office Suite (PowerPoint & Excel), Mathematica, Basic Bloomberg Terminal
Website: http://peterkaralekas.com – **LinkedIn:** www.linkedin.com/in/pkaralekas/ – **GitHub:** https://github.com/pkaralekas