Mariah Rogers

http://mariahjannae.me
mjr225@berkeley.edu | 831.262.7870

EDUCATION

UC BERKELEY

B.A. in Computer Science
Expected May 2017 | Berkeley, CA
GPA: 3.37 / 4.0

COURSEWORK

COMPUTER SCIENCE

Engineering Parallel Software (current)
Introduction to Database Systems (current)
Efficient Algorithms and Intractable Problems
Discrete Mathematics & Probability
Introduction to Computer Architecture
Data Structures
Structure and Interpretation of Computer Programs

MATHEMATICS

Linear Algebra and Differential Equations
Calculus (I & II)

SKILLS

PROGRAMMING LANGUAGES

Python • Java • C • Scheme • C++ • Lua

LANGUAGES

Portuguese

TOOLS

Emacs • Git, Mercurial • GDB Debugger • LaTeX
Microsoft Office • Eclipse

SPECIAL

Intel SSE Intrinsics • Hadoop MapReduce • OpenMP • OpenCL • MPI

PROJECTS

- Wrote a compiler (in C) from LISP-like simplified language into MIPS assembly.
- Wrote an artificial intelligence player for strategy board game.
- Designed pipelined RISC CPU using Logisim (logic circuit simulator).
- Implemented algorithmic optimization for matrix multiplication using parallelization, SSE intrinsics and cache blocking.
- Wrote a command-line math proficiency game for elementary school students.

WORK EXPERIENCE

NATIONAL SECURITY AGENCY

Computer Science Intern
Summer 2015 | Washington, DC

- Held Top Secret//SI//TK security clearance.
- Created dropped-pronoun identification and tagging program for informal Portuguese text.
  - Wrote grammatical rule-driven algorithm to identify the locations where pronouns have been dropped and insert the appropriate pronoun there.
  - Developed statistical machine learning model around output from the rule-based program.
  - Implemented naive algorithm for disambiguation and coreference resolution of entities in the documents.
- Now used by other NLP downstream analytics.

NEUROBEHAVIORAL SYSTEMS, INC.

Student Software Engineer
September 2014 – June 2015 | Berkeley, CA

- Implemented a remote network using Python's Socked module (TCP/IP protocol) for remotely conducting neuroscience experiments using stimulus delivery software.
- Contributed a routine for transforming structured XML data to a Python processing pipeline that produces formatted, hyperlinked, and indexed user documentation for custom programming language.
- Received weekly mentoring sessions with CEO on good programming practices.

EECS DEPARTMENT, CS 61B

Lab Assistant
Summer 2014, January 2015 - May 2015 | Berkeley, CA
Answered questions, reviewed core concepts, and assisted an Undergraduate Student Instructor in lab sections for introductory data structures course.

COMPUTER SCIENCE MENTORS, UC BERKELEY

CS Mentor
January 2015 - May 2015 | Berkeley, CA
Led small section (5 students) with the objective to ease first-year students' transition into the CS major by providing support, tutoring, and practice supplementary to the coursework required for the major.

COLLEGE OF ENVIRONMENTAL DESIGN, UC BERKELEY

Computer Resource Assistant
May 2014 - September 2014 | Berkeley, CA
Completed regular maintenance of large-format printers and other equipment, performed basic network and system administration, and managed college-wide student database for transactions and record-keeping.