Andrew EDWARDS

PERSONAL DATA

PLACE AND DATE OF BIRTH: hidden

PHONE: hidden EMAIL: hidden

WORK EXPERIENCE

JUL 2015-PRESENT

Software Engineer at IBM Almaden Research Center, San Jose Watson Core Technology

Distributed systems and infrastructure engineering for a number of cloud based machine learning services. Our team develops core components for the production systems of the Natural Language Classifier, Retrieve & Rank, and Conversations services. My focus is on the lifecycle management service for the machine learning models: executing training jobs, storing the models, starting the prediction runtimes, etc. I am also concerned with operational visibility of our distributed system. Our team interfaces directly with the algorithms team to ensure our service is using the latest and best modelling techniques, and to feedback performance improvements / experiment with new system designs.

APR-AUG 2014

Software Engineering Intern at IBM Silicon Valley Labs, San Jose Rational PurifyPlus

Worked in close cooperation with the PurifyPlus team, whose product provides dynamic program analysis. Designed an automated test suite of cross platform shell scripts, specifically for database applications using the product, to expand coverage and facilitate the reproduction of customer reported bugs. I also developed command line tools and scripts to improve the existing automation system and aid testers and developers.

JUN-AUG 2013

Summer Intern at NASA Jet Propulsion Laboratory, Pasadena *Guidance, Navigation, and Control (GNC)*

Performed statistical error analysis on the Honeywell MIMU, an inertial measurement unit being considered for the future mission Comet Surface Sample Return (CSSR). A major project of the GNC team was the Autonomous Landing and Hazard Avoidance Technology (ALHAT), a sensor suite to make real-time landing decisions to expand the number of potential landing sites. Under the guidance of my mentors, I analyzed the quality of measurements from the MIMU in MATLAB to experimentally assess the limitations of dead-reckoning with state-of-the-art hardware. I was exposed to signal processing, Kalman filtering, and mathematical modelling.

SEP 2012 - MAR 2013 SEP 2013 - DEC 2013

Teaching Assistant at UC SANTA CRUZ Honors Calculus

Advanced and fast paced course for students who excelled in high school AP calculus. Approached the subject from a historical perspective, introducing new techniques in the order they were discovered. Led problem solving sessions, provided individual tutoring through office hours, graded, and wrote homework solutions.

EDUCATION

JUNE 2015 Bachelor of Science in COMPUTER SCIENCE, highest honors

Bachelor of Arts in MATHEMATICS, highest honors

University of California at Santa Cruz

GPA: 3.86

PROGRAMMING SKILLS

Experienced: Java, Python, C, LATEX, Unix, SQL

Working Knowledge: C++, Matlab, JavaScript, HTML, CSS, WebGL, R

RELEVANT COURSEWORK

Computer Science

Data structures, algorithm analysis, operating systems, computer architecture, compilers, databases, functional programming, machine learning, artificial intelligence, video game A.I., scientific computing, independent research on k-SAT solvers.

Math

Calculus, linear algebra, complex analysis, chaos theory, abstract algebra, probability and statistics, topology