

Patrick Lin

(510) 566-7528 • patrick.lin@berkeley.edu • 3970 Westbury Road, Castro Valley, CA 94546

EDUCATION

University of California, Berkeley: Bachelor of Arts in Computer Science GPA: 3.3 Expected Graduation: May 2015

CS Coursework: Databases, Networks, AI, Machine Learning, Security, Human Comp. Interaction, Algorithms, Graphics

SKILLS

Languages: Python, Java, R, HTML/CSS, JavaScript, C **Other:** Eclipse, Android SDK, Git, UNIX, SQL, Access, Visio, LaTeX

WORK EXPERIENCE

IBM: User Interface Development Intern, Wayne, PA June - August 2014

- Developed and refined the talent management web application in IBM's Smarter Workforce enterprise product suite with JSR 286 (Java portlet programming), HTML/LESS, JavaScript, and JSPs in an Agile environment
- Implemented customizable administrator portlet messages, dynamic filtered forms, and responsive web functionalities

Visa Inc: Global Information Security Intern, Foster City, CA June - August 2013

- Improved the process and communications of the 300+ information security department by wireframing a more usable website and drafting a 30+ page report detailing issues, using data gathered from interviewing 27 global Visa employees
- Analyzed the company's Android web browser's source code, presenting the app's architecture and areas of interest
- Researched industry best practices concerning encryption methodology and cryptographic key management (NIST, KMIP, IETF standards) and audited existing company technical specification requirements for discrepancies and shortcomings

PROJECTS (GitHub: patricklin)

Wordtastic (Java/Android SDK)

Developed a voice-operated, customizable flashcard-based Android app to facilitate parent-child interaction and vocabulary building. Conducted task analysis and user testing, and created mockups and prototypes

Presidential Predictions (R)

Aggregated past election results and trained classifiers using recursive partitioning and nearest neighbor to compare misclassification rates and map changes in voting trends from 2004 to 2012

Database Design (Access, Visio, Python, Google Maps API)

Constructed a normalized relational database for a yoga studio, with EER diagram, schema, tables, and queries. Generated a heatmap of client locations and calculated the optimum expansion locations via k-means clustering.

SimpleDB (SQL, Java)

Implemented a custom database management system including the base structure and tuple catalog, support for SQL queries, query optimization via plan generation and cost estimation, and concurrency control

Pacman AI (Python)

Created an efficient Pacman-playing agent by implementing search algorithms, game trees, evaluation functions, and reinforcement learning techniques

Network Simulators (Python)

Implemented simulations of distance-vector protocol routing, reliable bi-directional UDP packet receivers with variable sliding windows and selective acks, and stateful, active end-host firewalls

EXTRACURRICULARS

Innovative Design: Vice President of Photo Services January 2014 – Present

Coordinate with clients and 20+ student photographers to organize portrait sessions and event photography, directly leading eight through exercises in post-processing and photo techniques, and TAing for a digital photography class

Berkeley Innovation: Project Lead, Mounza Redesign January 2015 – Present

Redesigning the application's recruiter website interface in direct collaboration with the company founders

Pioneers in Engineering: Robotics Team Mentor January – May 2013

Guided a team of high school students through the process of designing, assembling, and programming (in C#) an autonomous and remote controllable contender against 23 other teams into the robotics competition's quarter finals