

# Patrick Lin

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## EDUCATION

University of California, Berkeley: Bachelor of Arts in Computer Science, May 2015

GPA: 3.3

**CS Coursework:** Databases, Networks, AI, Machine Learning, Security, User Interfaces & HCI, Algorithms, Graphics

## SKILLS

**Languages:** Python, Java, R, HTML/CSS, JavaScript, C

**Other:** J2EE, Android SDK, Git, UNIX, SQL, Bootstrap, LaTeX

## WORK EXPERIENCE

**IBM:** Web Development Intern, Wayne, PA

June - August 2014

- Developed and refined the talent management web application in IBM's Smarter Workforce enterprise product suite using J2EE and Java portlets, HTML/LESS, JavaScript, JSPs, and Agile methodologies with the UI team
- Implemented responsive web functionalities, customizable admin portlet messages, and dynamically filtered forms

**Visa Inc:** Information Security Intern, Foster City, CA

June - August 2013

- Improved the communications of the 300+ information security department by wireframing a more usable website and drafting a 30 page report detailing key issues, using data gathered from interviewing 27 global Visa employees
- Analyzed the company's Android browser's source code, highlighting areas of security interest through UML diagrams
- Audited company specifications for cryptographic key management against industry best practices (NIST, KMIP, IETF)

## PROJECTS (patricklin.github.io)

### Wordtastic (Java/Android SDK)

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

### Raytracer (C++)

Created a program to render realistic 3D object scenes with shadows, reflections, and refractions from scratch.

### Presidential Predictions (R)

Aggregated past election results and trained classifiers using recursive partitioning and KNN to compare misclassification rates and map changes in voting trends.

### SimpleDB (SQL, Java)

Implemented a custom database system including the base catalog structure, SQL support, query optimization via cost estimation, and concurrency control.

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

Constructed a normalized relational database for a yoga studio, with EER diagram, schema, and queries. Mapped optimal expansion locations using k-means clustering.

### Network Simulators (Python)

Implemented simulations of distance-vector protocol IP routing, reliable bi-directional UDP packet receivers, and stateful, active end-host firewalls.

## LEADERSHIP

**Innovative Design:** Vice President of Photo Services

January 2014 – May 2015

Coordinated with clients and 20+ student photographers to organize portrait sessions and event photography, directly led eight through exercises in post-processing and shooting techniques, and taught an introductory photo course.

**Berkeley Innovation:** Mounza UI Redesign

January – May 2015

Overhauled the application's recruiter website interface in direct collaboration with the company's 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.