Christopher F. Ching

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**Education:**

University of California, Berkeley

B.S. in Chemical Engineering, May 2017

Concentration: Materials Science & Technology

**Relevant Coursework**

Computer Programming for Scientists and Engineers, Transport Processes, Transport and Separation Processes, Chemical Process Design, Chemical Engineering Thermodynamics, Chemical Kinetics and Reaction Engineering, Corrosion Analysis, Thin-Film Materials Science, Polymer Science & Technology

**Experience**

**Battery Development UC Berkeley ChemE Car – August 2014 to May 2017**

* Explored and researched various chemicals and reactions to form cell batteries to power a small car
* Constructed zinc-air, sodium-ion, and zinc-paste cells while experimenting with different setups and materials to increase the efficiency and current of each cell
* Analyzed each cell to take multiple readings of current densities and voltages under load
* Hands-on experience with both independent and team-oriented synthesis of battery materials and material characterization

**Software Engineering Intern Shoob Photography – May 2013 to August 2013**

* Continued development of existing web applications while developing new web applications using modern technologies and frameworks
* Developed web interfaces through HTML, HTML5, CSS and web frameworks (Bootstrap, Rails, JQuery)
* Developed relational database schemas for large data store
* Incorporated RESTful web APIs, including Google Drive API and Amazon S3 API, for cloud storage

**Full Stack Web Developer Shoob Photography – August 2013 to Present**

* Led the development and maintenance of multiple web applications using state-of-the-art security and frameworks, mainly through Ruby and server-side MVC Rails
* Incorporated object-oriented MVC client-side frameworks (Ember) for light front-end development
* Created responsive web interfaces through HTML, CSS, and Bootstrap, with front-end JavaScript, AJAX, and JS libraries (JQuery/JQuery mobile) for both mobile and cross-platform devices
* Managed multiple large relational database schemas and executed queries through RDBMS (PostgreSQL, MySQL) for data import and manipulation
* Configured RESTful routing to minimize unique paths while optimizing controller structures
* Integrated Redis (NoSQL) as an in-memory data structure store for intensive background tasks
* Incorporated unit tests to ensure desired functionality through test-driven development
* Developed secure web forms and data management systems for online billing in compliance with PCI/DSS

**Skills**

**Proficient in:**

* Ruby object-oriented back-end development
* RESTful routing, API implementation
* Web frameworks (Rails, JQuery, Bootstrap)
* UNIX environments
* MS Software (Excel, Access, Word, PowerPoint)
* SQL and relational database management – PostgreSQL, SQLite, MySQL
* HTML, HTML5, CSS, JavaScript, AJAX front-end
* Git, source control
* Quantitative data analysis: analyzing and characterizing electrode and material performance

**Activities**

* Member of the American Institute of Chemical Engineers **August 2014 - Present**