Michelle D. Zhang

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Education

Barnard College · Columbia University
Bachelors of Arts in Computer Science, *Cum Laude, May 2015*

- Took courses in data structures, OOP, networks, algorithms, databases, AI, operating systems, compilers, etc.
- Tools of choice included **Java**, **C**, **Python**, **git**, and standard **UNIX command line** tools (make, vim, grep, etc.)

Experience

Blue Apron
Software Engineer, *June 2016 - present*

- Hired as the 2nd engineer on the Supply Chain team, help architect and engineer a greenfield system for managing Blue Apron supply chain needs; productionalize a new tool critical for reaching three-way match, financial compliance, and ultimately an IPO
- Act as lead engineer for over a half dozen repositories, including multiple backend microservices, a frontend web application, internally shared software packages, and a tool for managing developing inside a complex, service-oriented ecosystem
- Use knowledge as lead engineer on these projects to regularly onboard and mentor new engineers, do code review across over a dozen repos and spanning multiple engineering squads, write the majority of the documentation for them (developer machine setup, project setup, problem definitions, architecture and design documents, conventions and best practices, etc.), and provide critical troubleshooting and escalated support functionality for them
- Represent Supply Chain interests, evangelize Supply Chain work, share personal development experience, and present alternative architecture proposals at various collectives (standards committees, training sessions, lunch & learns, etc.)
- Led Supply Chain's early adoption of the new, internal, container-oriented continuous integration and deployment platform; work closely with DevOps engineers in order to understand and troubleshoot platform issues; use experience to help other squads do the same
- Led Supply Chain's exploration into tools like **gRPC** and **React.js** which had not previously been used at Blue Apron
- Rapidly learn and apply new languages, libraries, tools, and concepts including **Ruby on Rails**, **PostgreSQL**, **Sinatra, DynamoDB, Flask (Python), Airflow**, **Kafka**, **BigQuery**, **gRPC**, **ES6**, **React.js**, **Redux**, **Jest, Nightwatch.js**, and **Webpack**; continually and proactively refactor old code as my familiarity with these tools increased, using new libraries or design patterns to improve project quality and robustness

Abacus Labs, Inc
Full-Stack Software Engineer, *June 2015 - June 2016*

- Hired as the 7th employee, architected and engineered features end-to-end for an expense management company using **Node.js**, **Express**, **AngularJS**, **HTML**, **Stylus, MySQL**, **Sequelize, Redis**, and **git**
- Improved expense search and filter capabilities, added ability to save searches, and added ability to create auto approval rules based on saved searches
- Built new team management page to better support large companies and support new people tags feature
- Planned and executed the migration from a group-oriented approval flow to a manager-oriented approval flow
- Added a variety of other core features including the ability to send and receive payments, have profiles with different companies, apply company branding to an account, resubmit denied expenses, change manager for an expense, sync Abacus with Salesforce, have a dedicated receipt forwarding email, manually map tags to accounting categories etc.
- Wrote tests using **mocha**, **chai**, and **supertest** (backend) and **Karma** and **PhantomJS** (frontend)
- Tracked metrics using **Datadog** and **statsd** and used them to troubleshoot issues and measure progress towards OKRs
- Cut production deploy speeds from 400-900 seconds to 90-250 seconds using **Deployinator**, **AWS**, and **rsync**
- Collaboratively formed and adhered to code best practices and standards

Whisk (formerly Zypsee, Inc)

Software Engineering Intern, *May 2014 - May 2015*

- Hired as a summer intern and then continued to work remotely in my senior year of college, engineered solutions for an online black car dispatching company
- Built a service using **Groovy on Grails** that let operators and drivers visualize areas of high mobile app user demand and low or clustered driver coverage throughout New York City and tools to help them redistribute coverage accordingly
- Built a web page using **AngularJS 1.2**, **HTML**, and **CSS** that lets users reserve rides through Whisk, update their reservations, and view their past rides
- Built a web page that let concierges reserve rides on behalf of other users using **jQuery**
- Had every commit to **SVN** reviewed thoroughly on **Reviewboard** by another software engineer or engineering intern

The Zhirong Bao Lab, Developmental Biology Program, Memorial Sloan-Kettering Cancer Center
Programming Assistant, *December 2013 - May 2014*

- Hired to work part-time and come in once per week, engineered features for AceTree, a tool for lineaging and visually analyzing the embryogenesis of C. elegans (a very popular worm)
- Built a feature that tracked and displayed the movement of cells during embryogenesis using **Java 1.5** and **Java3D**
- Built a feature that overlaid a 3D rendering of the embryo on a 2-color image used to track gene expression.

COMS 1004 Intro to CS/Programming in Java, Computer Science Department, Columbia University
Teaching Assistant, *September 2013 - May 2014*

- Held weekly office hours, graded weekly theory and **Java** programming assignments, and answered student questions through an online Q&A platform for an introductory computer science class of over 400 students

Artemis Project, Columbia University
Co-coordinator, *March 2013 - August 2013*

- Worked with three other coordinators to create a five-week curriculum to teach various computer science topics to rising 9th and 10th grade girls. Acted as lead coordinator on **Python**, **HTML**/**CSS**, and binary numbering system lessons