

# Carlos F. Ramírez

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## EDUCATION

### CORNELL UNIVERSITY

BA IN MATHEMATICAL PHYSICS  
College of Arts and Sciences  
May 2011 | Ithaca, NY

## SKILLS

### LANGUAGES

Python	Very Proficient
Bash/ZSH	Very Proficient
JavaScript (ES5)	Proficient
C	Familiar
C++	Familiar

### TECHNOLOGIES

#### Databases

SQLite • MySQL • MongoDB

#### Frameworks

Flask • Express/NodeJS • ReactJS

#### Version Control & Deployment

Git • SVN • Jenkins CI

#### Operating Systems

RedHat • Debian • Arch • OSX

#### Cloud Providers

Amazon Web Services (AWS)

CloudFoundry • Kubernetes

#### Other

ZeroMQ • JSON • YAML

PyPEG (Parser Generator)

Scrapy (Web Scraping Framework)

### ADDITIONAL

Team management and mentoring  
Technical writing and communication  
Technical training and teaching  
Read, write, and speak Spanish

## EXPERIENCE

### JP MORGAN CHASE & CO. | VP, SOFTWARE ENGINEER

2017 - 2021 | Houston, TX

- Developed post-trade technology for the FX Cash and FX Options business on the Athena trading platform processing roughly 1M daily trade events. Led the onboarding of new FX Options assets with similar trade volume to decommission expensive external systems. Python 2.7 on RedHat Linux through the Athena platform.
- Led the development team for a web application governing Market Risk trading limits, responsible for both application architecture and feature delivery of a team of 8 developers. Improved testing coverage tenfold before beginning microservice decomposition in order to migrate off the Athena platform and onto Kubernetes and CloudFoundry. Python 2.7 on RedHat Linux through the Athena platform, Python 3.6 on K8s, ReactJS for frontend served out of CloudFoundry.
- Collaborated with development teams across the bank to modernize and migrate their applications to the cloud through the CTO Accelerator Program. Covered everything from CI/CD patterns to microservice decomposition to migration of desktop applications to the web with ReactJS, across CloudFoundry, K8s, and AWS. Ran and helped design a two-week training program for internal engineers building full-stack web applications on AWS.

### RACKSPACE, INC. | SOFTWARE ENGINEER IN TEST

2016 | San Antonio, TX

- Worked on the testing framework and test bank for Rackspace's Oracle BRM billing management system. Improved test throughput enabling daily runs of the system, standardized test data generation for all account/product combinations, and provided an API for other services to use to test BRM. Python 2 on OSX for development, tests running on Ubuntu Linux through Jenkins.

### MONSANTO CO. | SOFTWARE DEVELOPER

2015 | St Louis, MO

- Worked on the frontend of a data entry web application for agricultural crop projections and their analysis using ReactJS and a customized version of Bootstrap, deployed to AWS. Javascript (ES6) and JSX through Babel.

### BLOOMBERG, L.P. | FINANCIAL SOFTWARE ENGINEER

2011 - 2014 | New York, NY

- Took over lead development of a distributed system to process the sanitization, storage, and QA of servicer data for over 60,000 securities. Introduced ZeroMQ to improve redundancy and scale up to 196 nodes with real-time job control. Python 2 on Red Hat Linux (RHEL 5 & 6).
- Led development of a YAML-based language for extraction of financial data from XLS, PDF, and TXT files in dozens of individual formats. Coordinated with a team of 50 analysts in NYC and Shanghai to develop version-controlled extraction scripts for over 60,000 securities from 25 servicers worldwide. Python 2 on Red Hat Linux (RHEL 5 & 6).
- Worked on a 3+TB SQLite/MongoDB database of all historical mortgage loan data in the United States and the code which generates new monthly data from various sources, made available to tech and business teams and terminal clients. Designed and implemented a statistical method to detect incorrect or incomplete loan data, in addition to a numerical approach to "filling in" missing pieces of data to use in cashflow projections. Python 2 on Red Hat Linux (RHEL 5 & 6).