Aman Agarwal

aman.agarwal.2718@gmail.com https://github.com/Goom11

Experience

Facebook Software Engineer, July 2017 - Current

Nuclide is a custom IDE for Facebook developers written primarily in Javascript and Flow using ReactJS and Observables (RxJS). My role as a software engineer was to demonstrate strong software engineering skills, gain an understanding of the codebase and product area to be able to identify and drive changes, and skillfully work with partner teams and those in cross functional roles.

Java Debugger

- My role on the Java debugger was to migrate it to speak Microsoft's Debug Adapter Protocol (DAP) and increase adoption amongst Android developers
- DAP Migration: Rewrote Nuclide's in house Java debugger to speak DAP as part of a project to migrate all Nuclide debuggers to speak the same protocol
  - Wrote multithreaded Java and learned to debug race conditions and properly use locks
  - Added integration tests testing the debugger end to end
- Driving Adoption: Utilized my newly gained knowledge of the codebase, I conducted user research on FB Android developers and drove adoption by developing features including better console expression evaluation, evaluate on hover support for variables in code, support for custom source paths allowing developers to debug library and other non standard code, and more
  - Used analytics infrastructure to measure changes in daily, weekly, and monthly usage

Python Support

- Despite the Python Services being used by thousands of FB developers, prior to my working on it, it was largely being ignored due to lack of manpower. As such, my role was to ramp up on the codebase, figure out what in the domain were the lowest hanging fruits and to implement them and drive growth
- Conducted a user survery to find users' biggest pain points
- Python Debugger: Sync And FB Specific Integrations
  - Pulled in upstream changes for the Python debugger, pulling in over two years worth of open source commits resulting in greater performance, bug fixes and additional features
  - Added custom support for Instagram Django Python developers who work inside of a tupperware container and need custom port forwarding and path mapping as well as a custom Chef deployment of Nuclide
- Format On Save: Feature in Nuclide that would format your file on save, using the appropriate formatter and formatter configuration according to your file's repository
  - Worked with FB Lint teams
  - Like all other projects, I communicated my progress by sharing a live document consisting of a breakdown of the tasks, a timeline, and any notes on what was currently blocking my progress

Facebook Software Engineering Intern, July 2016 - September 2016

- Uhaul-Daiquery Integration: Improving Data Scientist's UX by integrating two separate but commonly used together tools
  - Reduced cognitive overhead by remembering dependencies between queries and data transfers
  - Reduced cognitive overhead by pulling in metadata of datasets to help users compile queries more easily

Facebook Software Engineering Intern, July 2015 - September 2015

- pcomponents: debugging tool for ComponentKit, a React-inspired view framework for iOS
  - Used by Facebook's iOS developers
  - automatically generates debugging information for the app's bug reports
  - Open sourced, I have met developers outside of Facebook who use it
- Performance Components: tool for measuring Component creation and layout computation times
  - Generated data to determine which components used the most time
- Shimmering Stories: changed the way new Facebook posts load
  - Changes increased user interaction during the period in which new posts were being loaded from the server

Coupa Software Software Engineering Intern, July 2013 - September 2013

- Created and setup a developer VM
  - Decreased ramp up time for new developers
- Added the Visa Commercial Format and Orbitz Travel documents to the system
  - Allowed for Visa corporate card expenses and Orbitz travel expenses to be used by the expense management system

The Coding School Instructor, 2014 - 2017

- Taught HTML/CSS, Javascript, and Unity to Middle School Students
- Learned what makes programming difficult to learn and how tools can make this easier
- Helped design and provide feedback on course curriculums

Projects

Amanphic: April 2016 - Current

- (In Progress): An exploration into making abstractions easier to understand and create
- Uses a "Prototype tree" which combines advantages of both classical and prototypical inheritance
- Displays many instances of a class to help users better understand the abstraction that the class provides

FBCLI: April 2013

- Web-based command line interface for Facebook
- Wrote the input parser and passed parsed tokens to their respective functions
- 2013 Facebook SoCal Hackathon Winner

Education

2012-2016, 2020 (expected)

B.S., Computer Science, University of California, Los Angeles

About Me

I like meditating, rock climbing, comedy, and cats.