Sean Barag

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https://github.com/sjbarag

Experience

Jun 2021 — Present
Hulu, LLC — Seattle, WA
Interim Software Development Manager — Living Room

Mar 2020 — Present
Hulu, LLC — Seattle, WA
Principal Software Developer — Living Room

- Led team of 7 devs through complete UI rewrite, from prototyping to launch
- Implemented Redux pattern in Roku ecosystem
- Continued public maintenance of Hulu open-source projects (brs, roca, linter)
- Integrated OSS browser automation framework for automated UI testing
- Formal mentor to two other devs at Hulu

Mar 2018 — Mar 2020
Hulu, LLC — Seattle, WA
Senior Software Developer — Living Room

- Maintained Hulu app on Roku, written in Roku-proprietary language
- Led team of 5 devs to launch Hulu on Amazon Echo Show
- Released splitshot (see open-source contributions) to the public, including Hulu Tech Blog post
- Integrated device-free unit testing for Roku app
- Became internal point of contact for all Hulu open-source releases

Mar 2016 — Mar 2018
Hulu, LLC — Seattle, WA
Software Developer — Living Room

- Maintained HTML/CSS/JS Hulu app on consoles, smart TVs, etc.
- Worked with team of 4 to launch profiles support in HTML app
- Embedded with backend team to build initial version of client-facing content API for live TV
- Investigated app performance for Hulu with Live TV launch
- Implemented view-model pattern in backend and in Hulu on Roku

Apr 2015 — Mar 2016
Amazon.com — Seattle, WA
Software Development Engineer II — Marketplace Shipping Services

- Designed, implemented, and launched new public web service to purchase shipping labels for orders
- Supported external users during six months of private beta of shipping label web service
- Coordinated team of six developers working simultaneously in new codebase
- Supported and advised team of India-based developers for contributions to my team's codebase

Aug 2013 — Apr 2015
Amazon.com — Seattle, WA
Software Development Engineer I — Marketplace Shipping Services

- Reduced fatal errors from 1,100 per million requests to 200
- Contributed to internal tools to read and transform log data
- Developed and maintained Java service capable of processing ~1,000 requests per-second (peak)
- Designed asynchronous workflow-based service to purchase up to 500 shipping labels merged into single PDF

Sep 2012 — Jun 2013
Drexel University Capstone Project — Philadelphia, PA
Embedded Software Developer — Waterproof Recording Ammeter

- Evaluated microcontrollers for power consumption and peripheral support
- Designed supporting circuits for PIC 18F microontroller and sensors
- Implemented I2C sensor readings via vendor library
- Implemented data persistence on SD card via SPI via vendor library
- Built USB serial support for configuration via PC

Apr 2012 — Sep 2012
Lockheed Martin MS2 — Moorestown, NJ
Senior Technical Co-Op — Information Assurance (IA)

Mar 2011 — Sep 2011
Lockheed Martin MS2 — Moorestown, NJ
Senior Technical Co-Op — Computer Infrastructure & Integration Testing

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Notable Side Projects

Oct 2020 — **thcon** — A configurable CLI tool that switches multiple apps between light and dark themes
Goal: See my screen better in the sun with fewer steps, teach myself Rust
Status: Published and actively developed
https://github.com/theme-controller/thcon

Dec 2017 — **brs** — BrightScript interpreter implemented in TypeScript
Goal: Enable off-device testing by implementing (from-scratch) the language Roku apps are written in
Status: Maintained with coworkers and in active use
https://github.com/sjbarag/brs

Aug 2015 — **PNRG (Poorly Named Resume Generator)** — Templated resume source generator
Goal: Reduce effort required to maintain multiple parallel resume formats
Status: Frozen; updated as-needed
https://github.com/sjbarag/poorly-named-resume-generator

May 2011 — **Textspansion** — Text expansion for Android devices
Goal: Add missing features to Android ecosystem while learning Android dev paradigms
Status: Released June 2011, featured on Lifehacker.com in Sept 2011, now deprecated

Notable Open-Source Contributions

Sep 2020 — **git** — Added support for clone.defaultRemoteName config
Status: Submitted and released in 2.30
https://github.com/git/git/compare/54e85e7af1...de9ed3ef37

Jan 2019 — **roca** — Roku unit testing framework implemented on top of brs
Status: Developed in public, released, actively maintained with peers
https://github.com/hulu/roca

Jan 2018 — **splitshot** — Generates TypeScript declarations from CoffeeScript sources
Status: Developed internally, released, frozen
https://github.com/hulu/splitshot

Sep 2017 — **TypeScript** — Automatically inherit JSDoc comments subclasses and subinterfaces
Status: Submitted and released in 2.7
https://github.com/microsoft/TypeScript/pull/18804

Education

Drexel University — Graduated Jun 2013
BS in Computer Engineering
BS in Electrical Engineering (Electronics)
Minor in Computer Science

Philadelphia, PA
Cumulative GPA: 3.58 | In-major: 3.63

Skills

Languages
· Bash/POSIX shells
· C
· Docker (as needed)
· Java
· JavaScript / TypeScript
· LaTeX
· Python
· Rust (still learning)

Operating Systems
· macOS
· Linux (Arch, Debian, Fedora, RHEL, Ubuntu)
· Solaris 9 (briefly)

Tools
· AWS S3, DyamoDB, SQS, SNS, Lambda
· DBus
· git
· vim

Paradigms
· Distributed systems
· HTML Single-Page Apps (SPA)
· HTTP REST (client and server)
· Language Interpreters
· Service-Oriented Architectures (SOA)
· SQL and NoSQL databases