

ILAN BIGIO

ILANBIGIO@GMAIL.COM • (401) 680-3046 • ILANBIGIO.COM

EDUCATION

Brown University

Providence, RI • Graduating May 2020

Concentration Computer Science Sc. B. • GPA: 3.9/4

Coursework In Depth Algorithm Analysis, Operating Systems, Machine Learning, Software Security, Software Engineering, Computer Networks, Distributed Systems, Functional Programming

TECHNICAL SKILLS

Languages Python, Go, C, Bash, JavaScript, Java, C++, Scala, HTML, CSS, MATLAB

Frameworks React, Redux, p5.js, Next.js

EXPERIENCE

Twitter, Fullstack Engineering Intern – Developer Experience Team

San Francisco, CA • Summer 2019

- Led team of 12 in a customer-facing redesign to Twitter Developer Portal, revamping dashboard and billing flow.
- Held inception meeting with 15 engineers, producing 40 tickets, and then wrote entire technical design document.
- Spent a week migrating 22 website routes to a new layouts pattern, writing over 500 lines of React in 11 files.

Twitter, Backend Engineering Intern – Account Activity API

San Francisco, CA • Summer 2018

- Led development of data delivery validation framework, that bolstered security and deployment confidence.
- Proposed and wrote Python script to modularize hundreds of test cases, cutting review times from days to minutes.
- Gained experience developing with Scala's and Twitter's Libraries (Futures, Modules, Dependency Injection, etc).

Brown University, Head Teaching Assistant & SysAdmin

Providence, RI • Spring 2018 - Fall 2019

- Trained and managed a staff of 40 for Computer Systems, a class of 350 students, with a focus in scripting.
- Responsible for helping students debug 4hrs/wk, and spent over 30hrs grading over 50 project submissions.
- Administer departmental system for Brown CS, managing permissions, accounts, file systems, and networks.

PROJECTS

Lyft Bikes API Experiment, ↻ Python (Asyncio)

San Francisco, CA • Summer 2019

- Reverse engineered Lyft Bikes API to add remote-unlock functionality, and discovered a vulnerability.
- Performed MitM on my own phone for auth and endpoints, then multi-threaded wave of requests to guess bike id.
- Discovered and reported a vulnerability in the API, allowing Lyft to fix it, and received a \$500 bounty.

Deterministic Minesweeper, ↻ Python (Numpy) • JS (P5JS) • Heroku

San Francisco, CA • Summer 2019

- Developed a full version of minesweeper where every game played is provably solvable, using Numpy and P5JS.
- Designed a highly-performant solver that uses convolution to generate and analyze thousands of boards / sec.
- Implemented board pre-computation and client-side board caching to significantly reduce page loading times.

Weenix (Small Unix) Operating System, ↻ C (a lot of it)

Providence, RI • Spring 2019

- Implemented Unix-like operating system in a semester-long project, writing 3,500 lines in a 30,000 codebase.
- Built kernel modules for processes, threads, drivers, a virtual filesystem, S5FS, and virtual memory management.

Course Registration Assistant, ↻ Python (Flask) • Bash • Twilio • Heroku

Providence, RI • Fall 2016 - Spring 2019

- Deployed app to monitor course availability, designed for use entirely through SMS (clients need no internet).
- Designed through a two-year iterative process, adding modules and re-writing code with newer APIs.

INTERESTS

Hobbies Filmmaking and Visual Effects, Physics Stuff, Piano, Board Games, Liar's Dice, Hiking, Paddle Boarding