

Eugene Brodsky

San Francisco Bay Area • eugenebrod@gmail.com • (510) 359 1246

Education

University of California, Berkeley - 2018 - 2021

Degree: BS in Applied Mathematics

CS Coursework: Structure of Programs, Data Structures, Algorithms, Security, Numerical Analysis, Social Justice in CS

Math Coursework: Discrete Math, Linear Algebra, Abstract Algebra, Real Analysis, Complex Analysis

Associations: Mu Alpha Theta, Cal Tennis

Experience

Kinetic Reality • Software Development Engineering Intern - Dec 2021 - Present

- Ported existing sensor-hub code to a Nordic NRF52 embedded device while maintaining cross platform compatibility among Windows and Mac machines and the Nordic nRF52832 and nRF52840 chipsets.
- Used the Nordic SDK for interfacing with NRF52 hardware to implement an interrupt/event driven sensor-hub design. Designed a mechanism for servicing events in a predefined priority order.
- My changes resulted in a 2ms reduction between data-frames at max output.
- Added serial connection support between our server and embedded device using jSerialCom Java library and the Nordic SDK serial drivers.
- Implemented remote logging capability for the embedded device. Log messages would be routed through the server, to an auxiliary client, fast-forwarding our development.
- Ample exposure to software best practices including and not limited to – design principles, clean code, regression/unit testing, documentation, git etiquette, etc.
- Active participant in software design sessions, code review, standup meetings, and other collaborative events.
- Brainstormed branding and marketing ideas heading into investor demos and GDC (game developers conference).
- Software: C, Java, Python, GitLab
- Hardware: Nordic nRF52832 pca10040, Nordic nRF52840 pca10056

Personal Projects

Personal Website: <https://eugenebrodsky.me>

cScraper - A Craigslist scraping tool which alerts a user about new posts.

- Uses BS4 Python library to parse Craigslist's HTML for new posts and programmatically sends subscribers email updates for new posts that may interest them.
- A multithreaded application hosted on Google Cloud services, interfaced through a REST API.
- Software: Python, Flask, JSON, React, Axios, Docker, Firebase

YoutubeRatio - A Chrome extension for Youtube. Displays the like to view ratio for the current video.

- Extracted and decoded information from the DOM.
- Monitored DOM for changes to detect dynamic page reloads.
- Software: JavaScript, jQuery, JSON, HTML, CSS,

SkateDice - A random skateboard trick generator app.

- Enforced a constrained UI layout for a consistent look across all devices.
- Developed an interactive GUI– a rotating menu option selector which serves to create a unique user experience.
- Software: Swift, Xcode

Coursework Projects

RaceRunner - 2D tile-based game in Java.

- Designed a pseudo-random world generation algorithm.
- Other contributions – race mode, game architecture, and graphic design.
- Software: Java

File Sharing Client - An interface for an end-to-end secure encrypted file sharing system.

- Devised data structure to solve the enforcement of file ownership and privileges.
- Software: Go

Leadership

Mu Alpha Theta • Club Officer

- Hosted club meetings and promoted math club events. Scheduled with guest speakers to secure lectures. Created incentives with instructors to boost math club turnout.