Eugene Brodsky

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

Motivated and results-oriented recent graduate from U.C Berkeley with 6 months experience in software development. Knowledgeable in leveraging math, cs, and engineering towards solving technical problems. Seeking full time opportunity at a junior software engineer position. US citizen – no sponsorship required.

>> Education

University of California, Berkeley • BS in Applied Mathematics (Computer Science Submajor) • *Class of 2021*

Coursework: Structure and Interpretation of Computer Programs, Data Structures, Algorithms, Security, Numerical Analysis, Discrete Math, Linear Algebra, Abstract Algebra, Real/Complex Analysis, Social Justice in Computer Science

Associations: Mu Alpha Theta, Cal Tennis

>> Projects

Horse

Social/Competition iOS app designed for basketball/skateboarding. Connects users via proximity and facilitates consensus-based games. Powered by a NodeJS/MySQL backend connected to iOS clients through a REST API. Currently in development.

cScraper

Built a Craigslist scanning tool which alerts users about new craigslist posts real time via email or iMessage. Powered by a Python/Flask backend connected to a web-app created with Node/VueJS.

Cipher

Obscure messages by passing them through a cipher keyboard defined by a transformation string.

SkaDice

A random trick generator iOS app in Swift.

PintOS

Coordinated with a team of 4 to design solutions for a skeletonized LinuxOS. Implemented non-blocking multithreading in C. Manipulated stack by hand with low level assembly. Implemented shell creation and kernel system calls. U.C Berkeley project.

Cloud File System

A file system supporting file sharing and revocation. Created an access rights data structure which enforces data ownership. Secured against a comprehensive threat model using standard cryptographic primitives. Reported 100% security coverage. U.C Berkeley project.

RaceRunner

Partnered project where we developed a 2d tile-based game. My main contribution to this project was designing a pseudo-random world generation algorithm. Other contributions – race mode, game architecture, and graphic design. U.C Berkeley project.

>> Proficiencies

Languages - Python, JavaScript, Swift, SQL
Tools - Git, Xcode, Docker, Vi, Postman
Services - Firebase, Github
Frameworks - Flask, Express, React, VueJS
Runtimes - NodeJS
Misc - data structures, design patterns, algorithms, security principles, user experience, REST APIs, scripting, clean code
Soft Skills - problem solving, communication, collaboration, documentation

>> Experience

Institute of Transportation Studies at U.C Berkeley • Website Administrator • *January 2019 - June 2019*

Managed incoming data for ITS website. Restructured WordPress website to reflect ITS organizational changes and improve accessibility. Founded new processes for streamlining office routines and record keeping. Coordinated with guest lecturers in their lodging and accommodations while at U.C Berkeley.

Chabot Space and Science Center • Instructor • *Summer 2017, Summer 2018*

Created and executed camp activities. Curriculum focused towards nurturing an appreciation of STEM for historically underserved students.

Varsity Tutors • Tutor • *January 2016 - June 2017*

Developed lesson plans and practice exercises for students in individual and group settings.

Dyson • Sales Representative • *June 2015 - January 2017*

Worked in a team to promote the Dyson brand throughout the Bay Area. Conducted technical demonstrations and solved customer issues. Designed product display tools. Awarded employee of the month in November 2016. Consistently a top performer.

Mu Alpha Theta Honors Society • Club President

Hosted club meetings and promoted math club events. Corresponded with guest speakers to secure lectures. Developed incentives with instructors to boost math club turnout. Event rooms changed to comply with max occupancy fire codes.