Eugene Brodsky

A result-oriented recent graduate seeking full time employment in software development. Skilled in leveraging math, cs, and engineering towards solving technical problems.

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EDUCATION

U.C Berkeley — *BA in Applied Mathematics (CS SubMajor)*   2017–2021

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. Node/VueJS/Flask/Python.

SkaDice

A random trick generator iOS app in Swift. Features a "rotating knob" option selector for improved user engagement.

System Programming (UC Berkeley)

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.

Cloud File System (UC Berkeley)

An authenticated file system implementing file sharing and revocation. Documented a novel hierarchical access rights data structure which enforces data ownership. Secured against a comprehensive end-to-end threat model using industry standard cryptographic primitives. Reported 100% security coverage.

RaceRunner (UC Berkeley)

A partnered project in which we developed a 2d tile-based game. My main contribution to this project was designing a pseudo-random world generation algorithm. Other aspects I worked on include – race mode, game architecture, and graphic design.

EXPERIENCE

ITS — *Web Admin*   Jan 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.

COURSEWORK

Structure and Interpretation of Computer Programs

Data Structures

Algorithms

Security

Discrete Math

Linear Algebra

Abstract Algebra

Real/Complex Analysis

Social Justice in Computer Science

SKILLS

JavaScript (Node)

Python

SQL

Swift

Data Structures

Design Patterns

SOFT SKILLS

Problem Solving

Communication

Collaboration

Multitasking

Documentation

INTERESTS

UI Design

User Experience

API Development

EVENTS

HackeRam 2021