Byeong Min Park

Berkeley, CA 94704

byeongmin@berkeley.edu | (949) 433-3893 | https://github.com/byeongminP

Education

University of California, Berkeley   August 2018 – May 2022

Bachelor of Science, Electrical Engineering and Computer Science

Related Coursework: Linear Algebra, Probability, Data Structure, Algorithms, Data Science, Artificial Intelligence, Machine Learning, Computer Vision, Optimization Models, Security, Computer Architecture, Operating Systems

Experience

Junior Mentor, Computer Science Mentors   August 2019 — May 2020

Mentored two weekly sections of 4-6 students in a classroom setting, focusing on lecture topics and exam-like questions from CS61A, an introductory Python-based computer science course

Participated in weekly staff meetings to discuss about logistics, teaching strategies, and content preparation

Course Tutor, University of California, Berkeley   August 2019 — May 2020

Led two weekly office hour sessions along with a Graduate Student Instructor for CS61A, an introductory undergraduate course with 2000+ enrolled students

Taught programming concepts of abstraction and software through Python3, Scheme, and introductory SQL to small groups of students in need of additional help

Graded student projects and contributed to the course material

Projects

Expense Tracker

Built a expense tracking website, which provides a simple yet elegant interface for keeping track of transactions

Implemented the backend with Express.Js and MongoDB to support CRUD operations for transactions in JSON format

Built the frontend with HTML/CSS and React.Js, taking advantage of React hooks and Context API to parse transactions from the database and perform routed actions

Deployed the website to Heroku (https://expense-tracker-local.herokuapp.com/)

PintOS

Implemented fundamental OS features on PintOS, an educational uniprocessor Operating System written in C

Emulated Linux-like commands, supporting both process control and file system related syscalls with concurrency and synchronization in mind

Modified thread and process data structures to support priority scheduling with recursive priority donation

Redesigned page data structure to support stack growth and dynamic memory allocation

Devised a buffer cache design to build a faster, extensible file system data structure similar to Unix FFS

UnicornBox

Reconstructed an initially vulnerable file-sharing website by re-implementing user authentication and file functionality, supporting token authentication, file upload/download, and file sharing

Implemented various strategies for sessions and SQL querying from database to make sure that the server is protected from XSS, SQL injection, and other standard security attacks

Coded the backend with Golang

Skills

Programming Language: HTML/CSS, Javascript, SQL, Java, Python, C, Golang

Framework: Git, Jupyter Notebook, React.Js (CRA, Gatsby), Express.Js, Node.Js, MongoDB

Environment: Windows, Linux/UNIX

Language: Korean, English