

NIKHIL JAIN

nikhil.jain@berkeley.edu ◇ (732)-331-0873 ◇ github.com/nikhilJain17 ◇ nikhilJain17.github.io ◇ US Citizen

EDUCATION

University of California, Berkeley – *B.A. Computer Science, GPA 3.5*

September 2017 - May 2021

EXPERIENCE

Microsoft - *Software Engineering Intern*

June 2020 - August 2020

- Parallelized the second pass of the C++ linker to reduce compiler backend times
- Multithreaded writing to .obj files and multithreaded memory-mapped .lib file reads

Berkeley Lab11 - *Research Intern*

January 2019 - Present

- Working on domain-specific language and tools to design circuits at high levels of abstractions
- Implementing static analysis features in Haskell such as constant propagation for compiler to analyze circuits
- Published *Supporting Circuit Design with a Block-Based, Generator Language* in CHI 2020
- Published *Polymorphic Blocks: Unifying Specification and Control for Board Design* in UIST 2020

Berkeley Lab for Usable and Experimental Security - *Research Intern*

January 2020 - May 2020

- Researched how users interact with always-listening devices such as the Amazon Alexa and Google Home
- Developed a Android survey app that gave users a notification throughout the day asking them questions for a study

Berkeley CodeBase

September 2018 - Present

Software Developer

- Enabling configuration changes for Telegraf (open source data streaming agent) without having to restart agent using Golang

VP of External

- Mentored club members for seeking jobs and practicing interviews
- Established relationships, organized office tours and tech talks with companies like Salesforce, Figma, and Coffee Meets Bagel

Software Developer

- Developed vehicle takeover notifications for self-driving car to take control
- Examined proximity, drowsiness, acceleration from gigabyte-large datasets to develop heuristic score

Computer Science Mentors - *Student Mentor*

Jan 2019 - May 2019

- Taught CS 70: Discrete Math and Probability to a group of 4 students twice a week
- Reviewed lecture concepts, discussed practice problems, and tutored students throughout the semester

PROJECTS

Unix File System

- Improved inode-based file system for Pintos operating system to handle files up to 2 GB
- Implemented single and double linked inodes for expanding files in C

Haskell Lisp Interpreter

- Wrote implementation of the Lisp language in Haskell from scratch
- Created parser combinator library and evaluator to implement functions, primitives, variables, quote, and errors

Tacteyele

PennApps XV 3rd Place

- Developed convolutional neural net classifier that lets Parkinson's patients use laptops hands-free by tracking face movements and blinks for controlling mouse

SKILLS AND INTERESTS

- Python, Go/Golang, Java, C, C++, Rust, Haskell, React, Firebase, Android, Git
- Systems Programming, Distributed Systems, Compilers, Interpreters, Cloud, Backend, Infrastructure