ALEC GOEDINGHAUS

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EDUCATION

University of California, Los Angeles

Sep 2019 - Jun 2023

B.S. in Computer Science and Mathematics, GPA: 3.502/4.000

Honors: Dean's Honors

TECHNICAL SKILLS

Languages: C/C++, Python (Selenium, Skimage), Bash, OCaml, CLisp, LATEX

Technologies: Git, GNU/Linux, VSCode, Twilio

EXPERIENCE

Amazon

SDE Intern

June 2022 - September 2022

Seattle, WA

- · Designed and implemented a testing architecture in C and Python to test new AWS firmware.
- · Used QEMU, CANBus, and CoAP to simulate hardware communication in a testing environment.
- · This architecture will be used as part of integration tests for the next generation of AWS servers.

PROJECTS

EndFTs April 2022

· Created a Twitter bot in Python with Tweepy and Polygonscan which mints a PFP into a NFT.

· Winner of LAHacks 2022 Ankr prize for most creative use of blockchain technology.

CPU Simulator December 2021

- · Simulated a RISC-V CPU in C++ capable of handling nine different instructions.
- · Implemented optimizations such as pipelining and a two-level cache with multiple eviction policies.

Auto Paint August 2021

- · Created a Python script that clusters pixels of an image together by color with Skimage.
- · Implemented customizable options such as a user-defined tolerance, expanded view which separates groups into multiple images, and more.

Malloc Lab

November 2020

- · Developed a custom dynamic memory allocation library in C which utilizes a segregated list to maximize utilization and throughput.
- · Performed at about 80-90% efficiency compared to C's standard malloc function.

MatchBotCom February 2021

- · Created a Discord bot in Python for HackSC using GCP and deployed on Heroku.
- · Bot sends users in a server a customizable survey, pairing them using a stable matching algorithm.

ACTIVITIES & INTERESTS

Activities: ACM, Undergrad. Math Student Association, Club Martial Arts (Muay Thai, BJJ)

Interests: Math/Physics (Astronomy), Weightlifting, Film/TV (Better Call Saul), Cooking