Gabriel Mitnick

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EDUCATION

University of California, Berkeley | Berkeley, CA

Intended B.S. in Electrical Engineering & Computer Sciences

May 2024

GPA: 3.94

Relevant coursework: Data Structures, System Design, Computer Architecture, Computer Security, Artificial Intelligence, Machine Learning, Operating Systems

SKILLS

Programming languages: Python, Java, JavaScript + HTML + CSS, Lua(u), C, GLSL

Other tools: Git, GitHub, Jira, UNIX command line, Agile development, Adobe Photoshop & Illustrator **Soft skills:** Communication, resourcefulness, leadership, creativity, enthusiasm, attention to detail

EXPERIENCE

Roblox, Software Engineering Intern | San Mateo, CA

May 2022 - Aug 2022

- Worked on frontend for cross-platform app with 300+ million users in React & Redux ported to Luau
- Began implementation of a major upcoming mobile feature, collaborating closely with a backend engineer
- Communicated cross-functionally with designer & product manager to clarify specs & ensure alignment
- Created documentation of project & improved existing documentation of internal tools

Deep Blue Robotics, Sensing & Actuation Programmer | Belmont, CA

Oct 2016 - May 2018

- Wrote autonomous & tele-operative control code for 120-pound robot in Java
- Developed computer vision system for locating a target with OpenCV in Python on a Raspberry Pi

Wizbots, Lead Summer Camp Instructor | San Carlos, CA

Jun 2021 – Jul 2021

- Taught Java programming & mechanical engineering to students grades 3–8 through LEGO robotics
- Juggled technical curriculum, student engagement, parental concerns, & COVID protocols

Learningtech.org, Teaching Intern | San Carlos, CA

Jul 2017 - Aug 2018

- Assisted in engineering & programming classes for K-8 summer camp students
- Created & implemented curricula for classes on Scratch, Python, & Raspberry Pi

N95DECON, Volunteer Graphic Designer | Global/remote

Apr 2020 – Jul 2020

- Assisted international group of scientists working on N95 respirator decontamination
- Developed pipeline for translating documents about decontamination to 8 languages
- Aided international flow of scientific information to ease the PPE shortage in the early stage of the pandemic

OTHER PROJECTS

- gitlet: Simple version control system modeled after git with branching, merging, & persistence (Java)
- **Scheme interpreter:** For the minimalistic Lisp dialect Scheme (*Python*)
- Worms: Random abstract art generator with intelligent color picking (JavaScript + HTML Canvas)
- **Spar Star:** Local 2-player jousting game in the web browser (Javascript + HTML Canvas)
- **Pac-Man Agents:** Implemented AI techniques including neural networks, reinforcement learning, multiagent minimax & expectimax, probabilistic inference, & logical inference (*Python*)
- **Secure File Platform:** Share & revoke file access while guaranteeing confidentiality & authenticity despite malicious datastore by using primitives like private key encryption, MACs, & digital signatures (*Go*)