Gabriel Mitnick

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EDUCATION

University of California, Berkeley | Berkeley, CA

May 2024

Intended B.S. in Electrical Engineering and Computer Sciences

Major GPA: 4.00

- Structure & Interpretation of Computer Programs
- Data Structures
- Computer Architecture & Machine Structures
- Designing Information Devices & Systems
- Discrete Mathematics & Probability Theory
- Efficient Algorithms & Intractable Problems

Carlmont High School | Belmont, CA

Top Senior Math Student, National AP Scholar, 36/36 ACT

June 2020 Unweighted GPA: 3.98

SKILLS

Programming languages: Python, Java, C, JavaScript, HTML, CSS **Other tools:** Git, UNIX command line, Adobe Photoshop and Illustrator

Soft skills: Creativity, collaborative problem solving, resourcefulness, leadership, enthusiasm

EXPERIENCE

Lead Summer Camp Instructor, Wizbots | San Carlos, CA

Jun 2021 – Jul 2021

- Taught Java programming and mechanical engineering through LEGO robotics
- Managed classroom of 12 students, grades 3–8, with varying experience levels, as "Inventor Mentor"
- Juggled technical curriculum, student engagement, parental concerns, and COVID protocols

Teaching Intern, Learningtech.org | San Carlos, CA

Jul 2017 – Aug 2018

- Assisted in engineering and programming classes for K-8 summer camp students
- Created and implemented curricula for classes on Scratch, Python, and Raspberry Pi
- Brought students from no previous coding experience to writing their own games

Volunteer Graphic Designer, N95DECON | 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
- Worked with translators and trained other designers to edit infographics in Adobe Illustrator
- Aided international flow of scientific information to ease the PPE shortage in the early stage of the pandemic

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

Oct 2016 - May 2018

- Wrote autonomous and 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
- Maintained team website and merchandise store and lead spirit at competitions
- 2nd place (of 56 teams) at 2017 FRC Sacramento Regional; Team Spirit Award at 4/4 regional competitions

PROJECTS

- Build Your Own World: Procedurally generated rogue-like dungeon with custom 3D renderer (Java)
- **Scheme interpreter:** For the minimalistic Lisp dialect Scheme (Python)
- gitlet: Simple version control system modeled after git with branching, merging, and persistence (Java)
- c1ock: Solar-time digital clock for keeping life in sync with the sun (JavaScript + SVG)
- Worms: Random abstract art generator with intelligent color picking (JavaScript + HTML Canvas)
- Spar Star: Local 2-player jousting game (Javascript + HTML Canvas)