

San Diego, CA

Github: <https://github.com/seantfuhrman>

Website: <https://seantfuhrman.com>

SEAN FUHRMAN

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Summary of Qualifications

Current 3rd year Computer Engineering Student at UCSD. Highly proficient in programming with over 7 years of experience developing applications; with a broad knowledge base of hardware and software to design innovative systems. Experienced in web design using HTML/CSS/Javascript, incorporating Python libraries such as Numpy, PyTorch, Pandas, Matplotlib, and C++ Standard Template Library. Extensive leadership and teamwork experience, with an ability to communicate my ideas clearly.

Skills

- **Programming Languages:** Python; HTML/CSS/Javascript C++/C; Java; Linux/Shell;
- **Software:** VS-Code; MS Office; Word; Excel; Google Suite; Google Docs; Google Slides; Google Sheets; Zoom;
- **Libraries:** Matplotlib; Numpy; PyTorch; C++ STL;
- **Hardware:** Raspberry Pi; Arduino; designing and soldering circuits;

Education

San Diego, CA	University of California San Diego	2020 – 2024
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- Bachelor of Science in Computer Engineering | Major GPA : 3.9 | GPA: 3.75
- **Coursework:** Object Oriented Programming, Advanced Data Structures & Algorithms, Computer Architecture, Probabilistic Machine Learning, Web Client Languages.
- **Awards:** Provost Honors
- **Extracurriculars:** Ski & Snowboard Team, Alpha Epsilon Pi Philanthropy Chair, Sailing Club

Experience

<u>Research Internship, System Energy Efficiency Lab</u>	<u>Language: Python</u>	July 2022- Present
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- **Utilizes:** Python, Numpy, PyTorch, Matplotlib
- Assisted with research on Hyper-Dimensional Computing and its use for energy-efficient processing-in-memory machine learning.
- Developed Python model to simulate machine-learning algorithm running on error-prone hardware, and then analyze results.

<u>Teacher's Assistant Internship, Game-U</u>	<u>Languages: JavaScript,C#</u>	2016
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- **Utilizes:** JavaScript, C#, Unity
- Teacher's assistant for after school programs and summer camp to teach children video game programming

Projects

<u>Personal Website</u>	<u>Language: HTML/CSS/Javascript</u>	2015
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- **Utilizes:** HTML/CSS/Javascript
- Designed and programmed my own resume website at seantfuhrman.com

<u>LED Infinity Mirror</u>	<u>Language: C</u>	2021
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- **Utilizes:** Arduino
- Designed a Hand-Built LED infinity mirror with color-changing LED strip.

<u>Room Automation System</u>	<u>Languages: Python, C</u>	2016-2020
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- **Utilizes:** Raspberry pi, Arduino, Speech Recognition Library, RESTful APIs
- Designed, prototyped, and debugged microcontroller system designed to act as "assistant" via voice commands
- Capable of controlling lights, telling the weather, and playing music