Sean Fuhrman
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Education

- **University of California, San Diego** — San Diego, CA
  Bachelor of Science in Computer Engineering; Major GPA: 3.9; GPA: 3.77; — *Sept. 2020 – Present*
  - **Awards**: Provost Honors
  - **Coursework**: Object Oriented Programming, Advanced Data Structures & Algorithms, Computer Architecture, Probabilistic Machine Learning, Web Client Languages.
  - **Extracurriculars**: Data Science Student Society, Ski & Snowboard Team, Alpha Epsilon Pi Philanthropy Chair, Sailing Club

Experience

- **Art of Problem Solving** — San Diego, CA
  Software Engineering Intern — *June 2023 - Present*
  - **Tools**: Javascript, SQL(Postgres), HTML/CSS, Git, React, Node
  - Created internal infrastructure to automatically convert web pages into printable versions; Utilized for expanding educational material options to more schools.
- **System Energy Efficiency Lab** — San Diego, CA
  Research Internship — *July 2022 – Present*
  - **Tools**: Python, PyTorch, NumPy, Pandas, Matplotlib
  - Assisted with research on Hyper-Dimensional Computing algorithms 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.
- **Game-U** — Flemington, NJ
  Teacher's Assistant Internship — *2016*
  - **Tools**: JavaScript, C#, Unity
  - Teacher's assistant for after school programs and summer camp to teach children video game programming

Projects

- **Shazam 2.0**
  - **Tools**: Python, PyTorch, Pandas, MatPlotLib
  - Shazam-like music genre classification model trained on the Million Song Dataset. Achieved 99.6% accuracy on over 200,000 songs
- **Personal Website**
  - **Tools**: Javascipt, HTML, CSS
  - Designed and programmed my own resume website at seanfuhrman.com
- **LED Infinity Mirror**
  - **Tools**: Arduino, C
  - Hand-Built LED infinity mirror with color-changing LED strip.
- **Room Automation System**
  - **Tools**: Python, C, 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

Skills

- **Programming Languages**: Python; Javascript/HTML/CSS; SQL; C++/C; Linux/Shell
- **Tools**: GitHub; VS-Code; MS Office; Word; Excel; Google Suite
- **Libraries**: PyTorch; NumPy; Matplotlib; C++ STL
- **Hardware**: Raspberry Pi; Arduino; designing and soldering circuits