SELENA WILLIAMS

San Francisco, CA | +1 702 503 3462 | selena_williams@brown.edu | LinkedIn | GitHub

SKILLS

Libraries: PyTorch, TensorFlow, Keras, Scikit-learn, NumPy, SciPy, pandas, Hugging Face, CUDA, Matplotlib, OpenCV
Languages: Python, C, C++, Java, Bash/Shell, JavaScript, TypeScript, HTML, CSS
Frameworks: RESTful APIs, Systems Design, MVC, Flask, Networking, SSH, React, Node.js, Express.js, PyTest, JUnit
Tools: Docker, Linux/Unix, TensorBoard, Jupyter Notebook, Intel RealSense, LiDAR, VS Code, Git, Conda, Pip, Raspberry Pi

WORK EXPERIENCE

Amazon Robotics, Innovation Lab Jun 2024 – Aug 2024
Software Engineer *Boston, MA*

- Advanced state-of-art warehouse intelligence through end-to-end autonomous robotic data collection pipeline, improving package-retrieval efficiency by 10%
- Created real-time perception prototype leveraging open-source AI and state-of-art computer vision algorithms
- Developed low-latency object pose estimation capability using LIDAR data and signal processing methods
- Implemented infrastructure for networking, hardware, and troubleshooting, reducing onboarding time by 50%

Amazon Robotics, Innovation Lab Jun 2023 – Aug 2023
Software Engineer *Boston, MA*

- Solved $1.7B problem by creating highly automated next-gen back-of-van system in Rivian vans for Prime Delivery
- Built core software for in-van package tracking and organization, improving efficiency and user experience
- Integrated software and proprietary AI into in-van system with multiple screens, sensors, and GPUs
- Led team of 12 interns to construct novel dataset and led user system testing

Humans to Robots Lab Jan 2023 – May 2024
Research Assistant *Providence, RI*

- Developed conversational mental health support robot prototype using an LLM and real-time speech APIs
- Led pilot study deploying conversational agent in health support conversations, advancing human-AI interaction
- Analyzed 50+ research papers, active mentor underrepresented minorities in robotics

PROJECTS

Multimodal Sentiment Analysis | *PyTorch, CLIP, Transformers, Attention* Sep 2024 – Dec 2024

- Developed multimodal sentiment analysis model that achieved 94% accuracy using 50% of original training data
- Designed a novel architecture integrating CLIP, transformers, and keyless attention using MASAD dataset

Improving Gender-Bias in AI Depression Detection | *AI, Self-Supervised Learning* Sep 2024 – Present

- Analyzed AI fairness across genders by replicating state-of-art benchmarks and evaluating accuracy differentials
- Explored using self-supervised learning to improve accuracy of under-represented groups

AI-Personalized Wellness Journal | *Flask, BERT, Cosine Similarity, Java* Sep 2023 – Dec 2023

- Developed personalized wellness recommendations using BERT embeddings, cosine similarity, and gen AI
- Implemented robust accessibility features with multi-server setup and unit testing in full-stack project

Drowsiness Detection for Safe Driving | *Temporal Modeling, TensorFlow*

- Fine-tuned Video Swin Transformer architecture on the largest publicly available drowsy-driving dataset

Socially Responsible Computing Handbook, AI Team | *Ethical AI*

- Publishing curriculum on sources of bias in AI models for Brown's Socially Responsible Computing Center

EDUCATION

Brown University May 2025
B.S. Computer Science, GPA: 4.0 *Providence, RI*
Coursework: Deep Learning, Comp Vision, Lin Alg, Statistics, Software Eng, Design & Analysis of Algorithms, Embedded Systems

LEADERSHIP

Inspiring Children Foundation, Youth Advisory Board Co-Chair Jun 2014 – Present

- Raised 1+ million to support at-risk youth with mental health

Brown University Varsity Women's Tennis Sep 2021 – Apr 2022

AWARDS

- Gates Scholar, awarded to less than 1% of applicants for academic excellence
- Rogers Achievement Scholar, awarded to top 5 students in Nevada for academic excellence and impact
- Las Vegas Aces Title 9 Next Gen Award, recognizing outstanding impact for women in sports (tennis) and STEM