Jeremi Nuer

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Github, Linkedin, Personal Website

Self-driven student building projects in Machine Learning, solving problems with technology and business strategy, pursuing knowledge in computing topics such as Robotic Control.

EDUCATION

UNIVERSITY OF CALIFORNIA, SANTA BARBARA   **August 2023 - June 2027 (expected)**

B.S., Computer Engineering, GPA: 3.91

Relevant Coursework: Object Oriented Programming, Linear Algebra, Differential Equations, Multivariable Calculus

EXPERIENCE

UCSB DYNAMIC ROBOTICS LABORATORY

Research Assistant   **August 2024 - Present**

- Integrating load cells with Raspberry Pi to transmit data to MATLAB for robotic-assisted "Ball Therapy." Developing algorithm to optimize muscle activation for children with Cerebral Palsy.
- Decoding EMG data to benchmark muscle activation and evaluate effectiveness of robotic-assisted therapy.

LAWRENCE LIVERMORE NATIONAL LABORATORY

HPC Cluster Engineering Intern   **June - August 2024**

- Network Installed and Configured Alma Linux cluster with DHCP, Infiniband, Virtual Machines and containers.
- Deployed open-source Trino Query Engine with connectors to SQL Database and S3 Object Storage, enabling scale-out large dataset aggregation and benchmarks against paid product competitors.

UCSB TEACHING ASSISTANCE

Undergraduate Learning Assistant for *CMPSC 8*   **September 2024 - Present**

- Supporting TAs in computer science labs, assisting 100+ students with coding assignments in Python, providing 1-on-1 guidance and hosting office hours to address course-related questions.

UCSB DATA SCIENCE CLUB

Director of Technical Development   **June 2024 - Present**

- Developing and presenting multiple workshops on Python and Classical Machine Learning to hundreds of students. Organizing project series and mentoring teams through yearly project showcase.

PROJECTS

Daily News Summary App: www.tapestry.news   **March - May 2024**

- Developed daily briefing app, delivering unbiased AI summaries of top-5 news stories and winning SBHacks Project Series $1000 prize.
- Implemented a vector DB, word-embeddings, and a custom-ranking algorithm to scrape the most popular stories.

Deep Q-Learning (DQN) in Physics Simulator   **February - April 2022**

- Developed and trained Machine Learning Model to balance a pole on a cart in simulation for 2+ seconds. Created Youtube tutorial and wrote an article explaining DQN.

SKILLS

- **Languages**: Python, C++, HTML/CSS/Javascript
- **Frameworks**: Pytorch, Robot Operating System, Fusion360, S3 Object Storage, SQL, Vector Databases
- **DevOps:** Ansible, Kubernetes, Docker, Linux, MPI, SLURM