Sunami Dasgupta

Berkeley, CA
SunamiDasgupta00@gmail.com | 530-636-5824 | Portfolio | linkedin.com/in/SunamiDasgupta

EDUCATION

California State University, Chico — **Chico, California**
B.S. Computer Science | GPA 4.0/4.0 — *Expected Dec 2025*
Coursework: Machine Learning, Networks, Operating Systems, Distributed Systems, Discrete Math, Databases, Data Structures & Algorithms, Statistics & Probability, Calculus 1-3, Object-Oriented Programming

EXPERIENCE

Microsoft — **Redmond, Washington**
Software Engineering Intern — *May 2024 - Aug 2024*

- **Developed** and **shipped** the 'Generative Object Grab' for Microsoft Designers, serving **10 million+ users**.
- Utilized **SAM** (Segment Anything Model), **DALL-E 3**, **TypeScript** and **React** to enable **generative erase** and fill, enhancing image manipulation and background reconstruction capabilities.
- Implemented **telemetry** and error logging, **improving** the **reliability** and **performance** of the feature.
- **Spearheaded** the addition of **animation/sticker effects** for grabbed objects, collaborating with principal engineers and PMs, and conducted **4 successful demos** to secure its implementation.

ESNet, U.S. Department of Energy — **Berkeley, CA**
Software Development Intern — *Aug 2023 - Present*

- Engineered a **network monitoring system** using **Prometheus**, **Pushgateway**, and **Grafana**, enhancing data accuracy.
- Implemented automated L2 **debugging** script generation for multiple **concurrent network flows** and **parallel processing**, boosting efficiency by 50%.
- **Optimized** storage and deployment by **refining data retention**, introducing log rotation, and implementing **Docker**.

Lawrence Berkeley National Laboratory — **Remote, California**
Software Engineering Intern — *May 2023 - Aug 2023*

- Developed an automated **data handling** processes for the **SENSE Monitoring System** using **Python**
- Optimized **data management** through **dynamic** in-memory handling, **reducing storage** by 50% resulting in significant **cost savings**.

California State University Chico, Computer Science Department — **Chico, California**
Teacher & Lab Assistant, Data Structures & Algorithms — *Aug 2022 - Present*

- Assisted multiple classes with **100+** students in understanding **CS concepts** in **C++**, boosting performance by **17%**
- Provided support to 200+ students in utilizing **Linux** and **SSH** connections to **access ecc-linux machines**

RESEARCH / PROJECTS

Quantitative Momentum Strategy with Sentiment Analysis — *May 2023 - July 2023*

- Developed a **quantitative model** to identify high-potential stocks based on their historical price trends, using **Regression** and **Principal Component analysis**.
- Implemented **backtesting** using **Python's Pyfolio** library to assess the strategy's performance, and used **Sharpe Ratio** and **Drawdown** as key metrics for risk-adjusted returns.

Skin Cancer Detection using Image-Processing in Real-Time, IJTSRD, Volume-5, Issue-6, Oct. 2021

- **Published Research:** Developed and deployed a ML model using **TensorFlow** and **Keras**, achieving **97% accuracy** in detecting skin cancer through real-time image classification in an **Android app**.

SKILLS / AWARDS

Languages: C/C++, Python, JavaScript, TypeScript, SQL **Frameworks:** React/Redux, NodeJS, PyTorch, TensorFlow, Hadoop, MongoDB **Tech/Tools:** Linux/Unix, TCP/IP, Prometheus, Kubernetes, Docker, Git, Shell Scripting, Django, REST API, **Awards:** Stanford Hackathon Sustainability (Computer Vision) Runner-Up out of 1700+ hackers, Full-Ride Scholar, Dean's Honor List, Letters of Recommendation, Google Code Jam 2022, Rank: 607 out of 45,000, Linux Foundation Scholar 2022, CodeChef Global Coder 2021, Rank: 9 out of 60,000+. Chico State Excellence Scholarship 2022, 2023 & 2024 1 out 1,500+.