Sunami Dasgupta

Berkeley, CA

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EDUCATION

California State University - Chico

2026

Bachelor of Science, Computer Science

Chico, California

Data Structures & Algorithms, Statistics & Probability, Linear Algebra & Calculus III, ACM - GPA - 4.0 / 4.0

EXPERIENCE

Lawrence Berkeley National Laboratory

05-2023 - Present

Software Engineering Intern

Berkeley, CA

- Developed an **automated data handling processes** using Python, transitioning from static file storage to **dynamic in-memory data handling**, **reducing** the need for storage **space by 50%** and **decreasing processing power** requirements **by 60%**, leading to **significant cost savings**.
- Implemented real-time monitoring system using Prometheus & Grafana, resulting in a 40% increase in network visibility and control for high-performance data transfers.
- Implemented **Docker containerization** for SENSE applications, **enhancing** application **isolation** and **reducing** deployment **inconsistencies by 80%**.

California State University, College of Engineering

08-2022 - Present

Teaching & Lab Assistant

Chico, CA

- Assisted 50+ students in understanding complex CS concepts by developing individualized study plans and resources, boosting comprehension by 15%.
- Provided support to over 100 students in troubleshooting installation, use of Linux & SSH connections to access ecc-linux machines & configuring environment variables within the .zsh & bash source file.

JPMorgan Chase & Co

01-2023 - 03-2023

Software Engineering Intern Program

Remote

- Implemented JPMC frameworks and tools to interface with a real-time stock price data feed, improving data accuracy by 15%.
- Visualized stock price data using Tableau for traders, leading to a increase in decision-making speed.
- Collaborated with senior software engineers to develop and integrate new modules into the existing platform, resulting in an enhanced user experience and increased efficiency.

RESEARCH, PUBLICATION & PROJECTS

Quantitative Momentum Strategy with Sentiment Analysis

- Developed a quantitative model to **identify high-potential stocks** based on their historical price trends, using **Regression** and **Principal Component analysis**
- Enhanced the strategy by **integrating sentiment analysis**, utilizing **Naive Bayes algorithms** to process news data from a REST API and generate sentiment scores for each stock.
- 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.
- 1. Skin Cancer Detection using Image-Processing in Real-Time, IJTSRD, Volume-5, Issue-6, Oct. 2021
- 2. Detecting Breast Cancer with Logistic Regression Model, IJAEM, Volume-3, Issue-4, Apr 2021.

SKILLS & HONORS

Languages: C, C++, Python, Java, HTML5 / CSS, JavaScript, PHP, TypeScript, Bash Shell Scripting, MySQL. Technologies/Web Frameworks: React, Node, Mongo, ExpressJS, Tailwind CSS, jQuery, Bootstrap, REST API, Mongoose, Linux/Unix, Docker, Kubernetes, Prometheus, Grafana, SQLite

- 1. Google Code Jam 2022, Rank: 607 out of 45,000.
- 2. CodeChef Global Coder 2021, Rank: 9 out of 60,000+.
- 3. Stanford Hackathon, Runner-Up, Best Sustainability Project 2023 out of 1700+ hackers.
- 4. Chico State Excellence Scholarship 2022 & 2023, 1 out 1,500+.
- 5. Linux Foundation Scholar 2022, awarded for most number of Open-Source contribution.