# Sunami Dasgupta

5-Star coder @ CodeChef — Stanford Hackathon — Google CodeJam 2022 — LiFT Scholarship

## **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**

## Teaching & Lab Assistant

08 / 2022 - present

California State University, Chico

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.
- Instructed lab of 25 students in programming techniques through easy-to-follow examples, leading to a 10% increase in final exam scores.

# Software Developer Intern

05-2022 - 07-2022

Multiprocessing Muggles

Remote

- Developed a MERN based video calling application to support 10k+ users while maintaining 93% uptime
- Collaborated with design team on UX/UI improvements with Tailwind CSS and Bootstrap which resulted in an increase of user engagement by 20/%

#### PROJECTS & RESEARCH

# Spottr: Parking Lot Detection Z | Stanford University Hackathon

02 / 2023

- Contributed to promoting sustainable transportation practices by providing a convenient and efficient solution to a common problem faced by users and reducing the time wasted on circling parking lots.
- Developed a python app that utilizes advanced image processing techniques, such as adaptive thresholding, Gaussian blur, and dilation, to accurately detect parking spot occupancy in real-time.
- Utilized the OpenCV to optimize the image processing pipeline resulting in a significant improvement in the speed and usability of Spottr.

# Detecting Breast Cancer with Logistic Regression Z | Python, Seaborn, Machine Learning

- Pre-processed and cleaned the dataset using Pandas and NumPy libraries to ensure accuracy of predictions. Used Matplotlib and Scikit-learn libraries to visualize and analyze the data.
- Feature selection was done using techniques such as Correlation matrix, SelectKBest, or Recursive Feature Elimination.
- The accuracy of the model was measured using various metrics, including confusion matrix, precision, recall, and F1 score, which showed that the model had a accuracy 96%.

## Movie Streaming App 🗷 | TypeScript, REST APIs, Node, Modal UI

- Designed and implemented a clean, user-friendly interface using React , Modal UI, Styled Components and Tailwind CSS.
- Optimized the performance of the application by implementing efficient REST APIs, ensuring fast and reliable data transfer between the front-end and back-end.

## HONORS & AWARDS

Google Code Jam 2022 - Rank 647 out of 45300.

CodeChef Global Coder 2021 ☑ - Global Rank 9 out of 60K+ candidates.

Linux Scholar 2022 🔽 - Awarded as the "Developer-Do-Gooder" - Open-Source Contribution.

Chico State International Student Excellence Scholarship 2022.

Certificate of Excellence **Z** - For being in the top 0.1 % of 1.78 million candidates.

#### **SKILLS**

Languages: C, C++, Python, Java, HTML/CSS, JavaScript.

Technologies/Frameworks: React, Node, MongoDB, ExpressJS, TypeScript, Tailwind CSS, jQuery,

JS(ES6+), Bootstrap, REST API, Mongoose, Linux/Unix, Bash Shell Scripting