

Charvi Shukla

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EDUCATION

University of California, San Diego

La Jolla, CA

Bachelor of Science in Mathematics-Computer Science

Sept. 2021 – June 2025

- **Coursework:** Storage Systems (Dr. Keith Muller), Advanced Data Structures, Computer Organization and Systems Programming, Discrete Math, Enumerative Combinatorics, Abstract Algebra 1, Theory of Computation
- **Languages:** English, Hindi

EXPERIENCES

UC San Diego, Supplemental Instruction

La Jolla, CA

Tutoring

March 2022 – March 2023

- Held 50 min. supplemental instructions sessions for **Linear Algebra** three times a week, and held midterm/final review sessions.
- Assisted in facilitating class-wide discussion sections, with over 40 students per section (worked 5 sections per week) and re-taught content from the lecture.
- Provided extra support to 275+ students enrolled in Linear Algebra by collaborating with the teaching staff.

Diabetes Prediction Research

La Jolla, CA

Programming Assistant

June 2022 - Aug 2022

- Analysed PIMA Diabetes Dataset with a team of 5 students, along with professor Kyle Shanon.
- Utilized Python libraries such as NumPy, sci-kit learn and Pandas to build a linear regression to estimate a person's likelihood of being diagnosed with diabetes. Find the project GitHub here: [GitHub](#) and [Website](#).

Qualcomm Institute, Nano3 Calit2 Laboratory

La Jolla, CA

Lab Assistant

April 2023 – Present

- Operating the SEMs, FIB, and TEM as a service for academic and industrial users, and operating and training on the use of electron microscopy support equipment.
- Imaged silicon wafers, chip parts, and components on Zeiss Sigma 500 SEM, as paid service research for Dr. Xuekun Lu.

PROJECTS

Triton Enroll | *JavaScript, Node.js, Express, Firebase Firestore, React*

June 2022 – September 2022

- Created a web-app to make scheduling simpler. Scraped data from UCSD's schedule of classes. Wrote a parser from scratch to parse HTML pages containing course data. Stored data in a complex Firebase Firestore Database.
- Used a React-big-calendar to visualize course schedules. Enabled users to download a .ics file for the schedule with recurring events for all classes.
- Find the project here: [Frontend](#), [Backend](#) and [Deployment](#).

ACM Hack Projects, Food-Insta | *MERN stack, Google Maps API, AWS S3*

January 2023 – Present

- Implemented a food social media app using the MERN Stack with a team of 6 people. As a part of the backend team, wrote API routes, designed schemas for users, restaurants and posts. Used the model-view-controller model to set up the backend.
- Set up a MongoDB database with basic CRUD operations. Used AWS S3 to store Images uploaded with posts. Used the Google Maps API to create pins for each restaurant. Find the project here: [Food-IG](#).

ACTIVITIES AND LEADERSHIP

ACM Hack-Technical Events Director

La Jolla, CA

Association for Computing Machinery, UCSD

April 2023 – Present

- * Part of the board, collaborated with a team of 5 people on developing a 10-week long technical workshop series (ACM Hackschool) centered around full-stack development with MongoDB, Express, React, and Node.js
- * Mentored one ACM Hack Projects Team, over the course of a 10 week long web-development project (Spring 2023). Learn more at our [website](#).