VARUN MANGLA

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LANGUAGE AND IT SKILLS

- Programming: Python, C/C++, Node/ReactJS.
- Tools & Proficiencies: MySQL, Git, Docker, LightGBM, Machine Learning frameworks.
- Project Management: SCRUM methodology, Agile workflow, Project lead experience.

EDUCATION

Columbia University   New York, NY
Masters in Computer Science   Sep 2025 - May 2027

Santa Clara University (SCU)   Santa Clara, CA
Bachelor of Science in Computer Science & Engineering, CA, GPA: 3.92   Jun 2025

The Harker School   San Jose, CA
High School Diploma   Jun 2021

ACADEMIC ACHIEVEMENTS

- Tau Beta Pi Membership.
- SCU: Senior Design Computer Science and Engineering Technical Excellence Award.
- SCU: Senior Design Section Winner.
- SCU: Graduated Summa Cum Laude.

EXPERIENCE

Human-Computer Interaction Lab   Santa Clara, CA
Research Assistant   Jan 2023 - Jun 2025

- Established an application scraper for the Google Play Store and IOS App Store using NodeJS and ReactJS; searches for and exports information through an intuitive search functionality for non-technical HCI researchers.
- Implemented over ten major improvements and countless fixes as a full-stack developer by leveraging open-source APIs and Node modules, such as devising a new iOS App Store scraper.
- Maintained key features across hundreds of updates, ensuring researchers would only benefit from the work; led to more positive evaluations and greater trust in SMAR.
- Presented at conferences with team members, such as at SCU's yearly School of Engineering Showcase, featuring over 50 projects.

Uncertainty in Deep Learning   Santa Clara, CA
Research Assistant   Feb 2024 - Jun 2025

- Collaborated with two professors and a graduate student to construct models for representing uncertainty within each Neural Network prediction.
- Utilized statistical and programming knowledge to design a linear programming algorithm to ascertain at least one extreme point of the objective function used.

Senior Design: Lock and Roll   Santa Clara, CA
Co-Founder and Technical Lead   Sep 2024 - May 2025

- Collaborated with two of peers to construct Lock and Roll, a smart bike wheel lock supporting SMS & NFC communication, anon-device precise GPS system, and a gyroscopic alarm system.
- Devised software components, working with tools such as Twilio, Microsoft Azure, MySQL, and Hologram to attain accurate SMS connectivity between users and Lock and Roll devices.
- Formed and presented a working final product, winning numerous awards.

BroncoSec   Santa Clara, CA
Board Member & Meeting Leader   Oct 2022 - May 2025

- Executed efforts to increase outreach and attendee experience of SCU's cybersecurity club, such as creating and hanging up posters; led to 50% increase in promotional material.

- Coordinated with other board members to optimize weekly events — caused unprecedented growth and attendee retention.
- Engaged in weekly meetings; learned concepts such as AES Encryption, managing Docker instances, and steganography.
- Chipped in to BroncoCTF, BroncoSec's annual Capture-the-Flag; designed one of the toughest challenges for over one thousand people.

Rating Update - Machine Learning (RUML)   Santa Clara, CA
Developer   Oct 2024 - Dec 2024
- Developed a set of over 5 different machine learning models to determine results of matches in "Guilty Gear -Strive-" based on a multitude of factors, such as character picked, overall ranking, and opponent.
- Achieved a higher accuracy than Glicko-2, another evaluation method, through use of a fine-tuned LightGBM model.

DeScope   Los Altos, CA
Software Development Intern   Jun 2023 - Sep 2023
- Interned at a startup aiming to create password-less solutions to authentication-based services for thousands of developers.
- Developed a program to print out name cards for users polled from DeScope's database during conferences, potentially exceeding one hundred.
- Focused on making its output look professional while keeping the program optimized and easily editable, leading to a program under 300 lines.
- Obtained key Python and workplace skills through developing for DeScope.