

Harvir Ghuman

916-477-5594 | harvirg17@gmail.com | [linkedin.com/in/harvir-ghuman](https://www.linkedin.com/in/harvir-ghuman) | github.com/HarvirGhuman

EDUCATION

University of California, San Diego (UCSD)

Bachelor of Science in Computer Science

La Jolla, CA

Expected June 2027

Sierra College

Associate of Science Computer Science, Mathematics, Physics

Rocklin, CA

Graduated May 2025

EXPERIENCE

Invention Program Facilitator

July 2025 - Present

Project Invent

San Diego, CA

- Selected for a national micro-internship focused on empowering students through invention-based learning.
- Participated in a weeklong Summer Institute (32+ hours), including hands-on modules in empathy-driven design, Arduino prototyping, and real-world problem-solving for community partners.
- Delivered a final project pitch presentation, showcasing developed solutions and facilitation strategies, and will be leading a group of 20 high school students through this same invention-based process during the school year.

Deep Learning Project Intern

June 2025 – August 2025

Math Works

Remote

- Led task distribution among group members based on strengths to streamline workflow and meet deadlines.
- Created a sentiment-driven cryptocurrency trading model using **MATLAB** and **Python**, using Reddit API data.
- Presented findings in a professional report and dashboard using GitHub, highlighting correlations between social sentiment and crypto market volatility.

Security Guard

June 2023 – August 2025

Triple Canopy

Sacramento, CA

- Implemented security protocols for multiple state facilities, including the California Department of Technology, assuring facility safety and integrity.

PROJECTS

Crypto Sentiment Analyzer | *MATLAB, Python*

- Created a crypto trading system that integrated Reddit data pipelines using Python for sentiment extraction and MATLAB for strategy execution.
- Performed sentiment analysis using **VADER** and custom machine learning models via **Groq's LLaMA API** to quantify public sentiment toward Bitcoin.
- Utilized Econometrics Toolbox and Statistics & Machine Learning Toolbox to create predictive time series models incorporating sentiment features.

Web Automation Tool | *Node.js, Puppeteer*

- Automated full job application cycle with **form-filling, dynamic DOM interaction, and page state management**.
- Using **Node.js, Puppeteer**, and the **Gmail API** to apply to job postings autonomously, cutting down manual application time from **5 minutes to under 30 seconds**.

Task Manager | *AngularJS, TypeScript, HTML, CSS*

- Designed an interactive **Angular-based** task manager, using **TypeScript, HTML, and CSS**
- Implemented feature integrations and performed debugging to ensure seamless functionality across modules

GPA Database | *Python, SQL, AWK, Bash*

- Developed a system that enabled users to log in, input grades, and retrieve their GPA efficiently.
- Implemented query optimization strategies that improved GPA lookup performance by **30%**, enhancing the project's usability

TECHNICAL SKILLS

Languages: Python, Java, C, C++, JavaScript, TypeScript, HTML, CSS, Swift (Basic), SQL, MATLAB

Frameworks: AngularJS, React, NodeJS

Developer Tools: Github, Linux/Bash, Visual Studio

Libraries: Puppeteer, pandas, Matplotlib