

# Sid Padmanabhuni

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## SUMMARY STATEMENT

A highly motivated Computer Science student at San Francisco State University with a background in Human-Robot Interaction and Human-Computer Interaction research, leadership at the university level, and industry experience through an internship at Aryaka Networks, where I worked on AI-driven security solutions and full-stack development.

## EDUCATION

**Bachelor of Science in Computer Science**, Expected May 2025

**Minor in Mathematics**, Expected May 2025

San Francisco State University, GPA 3.9/4.0

**High School Diploma**, June 2021

Mission San Jose High School

## PROFESSIONAL WORK EXPERIENCE

**Software Engineering Intern**, June 2024 - Present

**Aryaka Networks**, Santa Clara, California • Hybrid

**Job Type:** 40 Hours/Week, Full-Time

**Manager:** Srinivasa Addepalli, Chief-Technology Office, Aryaka Networks

**Supervisor(s):** Subha Venkataramanan, Distinguished Engineer, Aryaka Networks and Ritu Sood, Distinguished Engineer, Aryaka Networks

- Built parsers to intercept, analyze, and redirect GenAI HTTP traffic to our envoy proxy, enabling advanced monitoring and granular policy enforcement for GenAI transactions.
- Designed and implemented features at the Firewall layer to detect, monitor, and enforce security policies for GenAI-related transactions, ensuring enterprise compliance and data protection (DLP).
- Performed full-stack development tasks, including defining Restful APIs, integrating the backend sql database with the controller plane, designing elements of the GUI, and bridging the gap between the frontend and backend.
- Strengthened expertise in cloud security, API monitoring, microservices architecture, and scalable infrastructure, significantly improving problem-solving abilities in AI-driven cybersecurity.

**Undergraduate Researcher, Human-Computer Interaction**, June 2023 - Present

**Arizona State University**, Tempe, Arizona • Remote

**Job Type:** 20 Hours/Week, Part-Time

**Supervisor:** Pooyan Fazli, The People and Robotics Laboratory, Arizona State University

This research proposal addresses the pressing issue of video inaccessibility for the blind and low vision (BLV) community in the United States. Our work is funded by the National Institute of Health.

My current work involves curating a new video dataset from YouTube, specifically tailored for the Blind and Low Vision (BLV) community. Each YouTube video is paired with a qualitative description generated using a combination of multiple large language models (LLMs) and a blind-friendly instructions that we have engineered in our previous research. Each video is also accompanied with related metadata that has been scraped from YouTube's website.

**Undergraduate Researcher, Human-Robot Interaction**, June 2022 - May 2023

**Arizona State University**, San Francisco, California • Remote

**Job Type:** 20 Hours/Week, Part-Time

**Supervisor:** Pooyan Fazli, The People and Robotics Laboratory, Arizona State University

In-depth research of human-robot interaction. Through an extensive search of existing robot hands, we compiled a database of hands with their feature set. We collected user impressions of these hands using surveys with a 17 rating scale. The data gathered through the surveys is used to train a linear regression model to predict user impressions of the hands within a 10-point margin of error.

## **PUBLICATIONS**

[\*\*\*Designing and Evaluating Interactive Tools for a Robot Hand Collection.\*\*\*](#) Ramzi Abou Chahine, Sid Padmanabhuni, Pooyan Fazli, and Hasti Seifi. In Proceedings of the ACM/IEEE International Conference on Human-Robot Interaction, Late-Breaking Reports (HRI), 2023

[\*\*\*VideoA11y: Method and Dataset for Accessible Video Description.\*\*\*](#) Chaoyu Li, Sid Padmanabhuni, Maryam Cheema, Hasti Seifi, Pooyan Fazli. In Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems (CHI), 2025.

Padmanabhuni, Sid. (2024, June 15). [\*\*\*Traditional Secure Web Gateways Are Inadequate for the Internet of the New Era.\*\*\*](#) LinkedIn.

Padmanabhuni, Sid. (2024, August 10). [\*\*\*Enhancing LLM Security Through Prompt and Response Red Teaming.\*\*\*](#) LinkedIn.

## **COURSE WORK**

### **CS Coursework (In-progress or completed):**

- CSC 210: Introduction to Computer Programming
- CSC 220: Data Structures
- CSC 230: Discrete Mathematical Structures for CS
- CSC 256: Machine Structures
- CSC 317: Introduction to Web Software Development
- CSC 340: Programming Methodology
- CSC 413: Software Development
- CSC 415: Operating System Principles
- CSC 510: Analysis of Algorithms I
- CSC 620: Natural Language Technologies (NLP)
- CSC 648: Software Engineering
- CSC 671: Deep Learning

### **Mathematics Coursework (In-progress or completed):**

- MATH 226: Calculus I
- MATH 227: Calculus II
- MATH 228: Calculus III
- MATH 324: Probability & Stats w/ Computing
- MATH 325: Linear Algebra
- MATH 400: Numerical Analysis

## **KNOWN PROGRAMMING LANGUAGES**

<b>Low-Level</b>	<b>General-Purpose</b>	<b>Web Development</b>
<ul style="list-style-type: none"><li>- MIPS Assembly</li><li>- x86 Assembly</li><li>- C</li></ul>	<ul style="list-style-type: none"><li>- C++</li><li>- C#</li><li>- Java</li><li>- Golang</li><li>- Python</li></ul>	<ul style="list-style-type: none"><li>- HTML</li><li>- CSS</li><li>- JavaScript</li><li>- PHP</li><li>- SQL</li></ul>