SID PADMANABHUNI

Software Engineer | Research Assistant

Email: sidpadmanabhuni@gmail.com in LinkedIn: linkedin.com/in/SidPad03





SUMMARY

Software Engineer specializing in AI security and full-stack development with proven expertise in GenAI traffic analysis, firewall implementation, and RESTful API development. Demonstrated research capabilities in human-computer interaction and accessibility, with publications in top-tier conferences (CHI, HRI). Strong background in cloud security, microservices architecture, and machine learning applications.

EXPERIENCE

Aryaka Networks

Santa Clara, CA



Software Engineer

Full-time



 Converted to full-time employee from internship position, demonstrating exceptional performance and technical expertise

Engineering Intern

Internship



- Built parsers to intercept, analyze, and redirect GenAl HTTP traffic to envoy proxy, enabling advanced monitoring and granular policy enforcement
- Designed and implemented firewall layer features to detect, monitor, and enforce security policies for GenAl transactions, ensuring enterprise compliance and data protection (DLP)
- Performed full-stack development including RESTful APIs, SQL database integration, GUI design, and frontend-backend bridging
- Strengthened expertise in cloud security, API monitoring, microservices architecture (including Kubernetes Orchestration), and scalable infrastructure

EDUCATION

Masters of Science in Computer Science

Georgia Institute of Technology

Aug 2025 - May 2027

Bachelor of Science in Computer Science

Minor in Mathematics

San Francisco State University

m Aug 2021 - May 2025

Summa Cum Laude | GPA: 3.9/4.0

High School Diploma

Mission San Jose High School

m Aug 2017 - June 2021

PUBLICATIONS

VideoA11y: Method and Dataset for Accessible Video Description

1

Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems (CHI), 2025

Designing and Evaluating Interactive Tools for a Robot Hand Collection Proceedings of the ACM/IEEE International Conference on Human-Robot Interaction, Late-Breaking Reports (HRI), 2023

Arizona State University

Tempe, AZ

Research Assistant, Human-Computer Interaction

Part-time

- iii Jun 2023 Apr 2025
- · Research addressing video inaccessibility for blind and low vision (BLV) community, funded by National Institute of Health
- Curating video dataset from YouTube tailored for BLV community with qualitative descriptions using multiple LLMs
- · Engineering blind-friendly instructions and accompanying videos with metadata scraped from YouTube

Research Assistant, Human-Robot Interaction

Part-time

- ## Jun 2022 May 2023
- · Conducted in-depth research of human-robot interaction through extensive search of existing robot hands
- · Compiled comprehensive database of robot hands with feature sets and collected user impressions via 17-point rating scale surveys
- · Trained linear regression model to predict user impressions within 10-point margin of error

KEY ACHIEVEMENTS



Academic Excellence

Graduated Summa Cum Laude with 3.9/4.0 GPA



Research Publication

Published in top-tier CHI conference on accessibility research



NIH Funded Research

Contributed to National Institute of Health funded accessibility research

SKILLS

Al Security & GenAl Traffic Analysis

Firewall Security & DLP

Full-Stack Development

RESTful APIs & Microservices

Cloud Security & API Monitoring

Human-Computer Interaction

Machine Learning & Linear Regression

Database Management & SQL

Accessibility Research

Python & Web Technologies