

# Anagha Naga Krishna

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## EDUCATION

### University of Southern California

Master of Science in Computer Science **GPA: 3.68/4**

Los Angeles, CA

**Aug 2023 - May 2025**

**Courses:** DBMS, Algorithms, Web Technologies, Security Systems, Information Retrieval, Security and Privacy

## TECHNICAL SKILLS

- Programming Languages: Python, JavaScript, C, Swift, Go
- Databases: SQL, MySQL, MongoDB
- Web technologies and frameworks: HTML, CSS, TypeScript, Flask, FastAPI, Starlette, NodeJS, React, SwiftUI
- OS /Tools: Windows, Mac, Linux, Google Workspace, MSOffice, GitHub, GitLab, Docker, Kubernetes, Bash

## PROFESSIONAL EXPERIENCE

### Sandia National Laboratories

#### Software Engineering R&D Intern

**May 2024 – Jul 2025**

- Integrated Bandit into the **CI/CD** pipeline on **GitLab**, to detect vulnerabilities & reduce security issues during code merges by 30% for Sandia's Computing as a Service (CaaS) APIs.
- Implemented Helm charts for the API and OpenAPI Specification deployments of CaaS which led to efficient process management.
- Refactored CaaS API code and wrote test cases to improve logging and error handling, increasing test code coverage by 25%.
- Instrumented 5 sample programs and exported traces to **Jaeger** using **Python** and **OpenTelemetry**, while serializing OTLP JSON to Jaeger thrift format to analyze tools that use Formal Methods for Proof Engineering.
- Summarized findings in a white paper about Observability in Software Systems and its intersections with Security and Usability for the CSRI Summer proceedings.
- Created a Docker Compose file that spins up required **Docker** containers with one command, simplifying application control and saving over 90% of the time spent on individual container setup for an internal workflow management web application.
- Built API for fetching workflow results from **OpenShift** and returning them to the frontend using **FastAPI** and **Kubernetes** API, reducing data retrieval time by 50%.
- Improved S3 artifact accessibility by implementing an API to fetch pre-signed URLs and integrating a UI button, simplifying the download process and improving efficiency by 50%.

### Infoblox

#### Software Engineer 1

**Apr 2022 - Jul 2023**

- Developed scripts to migrate data from Version 1 to **Jira** using Python and Jira APIs, enhancing engineers' productivity by over 40% and providing team leads with better reports for analysis.
- Validated the correctness and functionality of the BloxConnect User Interface, improving product quality, and automated test cases using **Python** and Selenium, reducing testing time by 50%.
- Created documentation and held training sessions for the NIOS engineering team, architects, and PMs on effectively utilizing Jira for Agile project management, thus enabling a smooth transition from Version 1 to Jira in the firm.

#### Software Engineer

**Aug 2021 - Mar 2022**

- Automated the configuration of various features on NIOS using **Python**, ensuring accurate data collection on BloxConnect and reducing execution time from 20 hours to 2 hours.
- Verified and examined the accuracy of all static and buffered data obtained from BloxConnect, maintaining data accuracy above 90%.

#### Software Engineer Intern

**Jan 2021 - Jul 2021**

- Designed and developed the front-end using **HTML**, **CSS**, and **JavaScript**, and contributed to the back end of an internal web application using Django, enabling over 50 users to obtain customized commands for configuring NIOS on virtual machines.

## ACADEMIC PROJECTS AND CERTIFICATES

### 'Becoming a product manager: A complete guide' course on LinkedIn Learning

**Jul 2025**

Completed a 10-hour course where I learnt about product management, product development and agile methodologies.

### Penetration Testing, Threat hunting, Cryptography Certificate

**Mar 2025 – April 2025**

Enhanced my knowledge of penetration testing, cryptography and threat hunting through a course offered by IBM on Coursera.

### Prompt Engineering for Generative AI Certificate

**Mar 2025**

Completed the Introduction to prompt engineering for generative AI course and earned a certificate on LinkedIn learning.

### Card Game Galore

**Nov 2024**

A simple iOS app that has four card games built using Swift and SwiftUI. Game logic is based on the built-in random function.

### Stock Search

**Feb 2024 - May 2024**

Developed an iOS & MERN application that provides stock information, trends and news articles when a ticker symbol is searched by the user.

### Tailor-made Teller

**Dec 2020 - May 2021**

Created a hybrid file screen reader, to extract text from files, convert to speech & display text on screen with audio and text highlighting.

### Prediction of depression using tweets during COVID-19 lockdown

**Aug 2020 - Sep 2020**

Conducted sentiment analysis on tweets published during the COVID-19 lockdown to predict the likelihood of depression using Python.

### Simulation of k Nearest Neighbors (kNN) classifier

**Feb 2020 - May 2020**

Made a simulation for demonstrating the working of the kNN classifier, a popular classification algorithm used in Machine Learning.