

Professional Experience

Software Development Engineer (Volunteer) Arizona State University

January 2024 - Present
Tempe, United States

- Collaborated with clients to gather requirements and provide technical solutions resulting in a 100% satisfaction rate.
- Led a team of 5 to create scalable end-to-end web and mobile application leveraging Django for the backend, react for the front end, and MongoDB for the database.
- Developed **RESTful web services** and APIs in **Python django**, resulting in a 25% increase in application functionality and a 20% reduction in development time.
- Improved app security by 30% through two-factor authentication implementation in the **signup** module using the **Python Django** framework.
- Authored and maintained documentation for database management procedures, resulting in a 30% reduction in onboarding time for new staff.
- Transformed UI/UX design wireframes into code, generating various visual elements for the event application using **HTML, CSS, and React Native**.

Software Engineer

July 2020 – August 2021

Crest Data Systems

Ahmedabad, India

- Developed **data collection** logic in **Python** in Splunk to collect real-time cloud security data from the security platform into Splunk.
- Created over 30+ interactive dashboard panels with **XML, HTML, CSS, SplunkJS, and Splunk Search Processing Language** to enable visually engaging data-driven decisions for customers.
- Used Eventgen to generate 10,000+ rows of dummy data with appropriate source type to **perform load testing** of the dashboard of the Splunk app.
- Contributed to the **Splunk CMP Automation** project in which I used **Jenkins** pipeline for **debugging** and triaging **100 + automation test case** failures to categorize them into test code issues, product issues, and infrastructure issues of Splunk by analyzing the **root cause**.
- Wrote new automation test cases using the Python **testing framework** for Splunk bugs and fixed **70+** test case failures of Splunk to verify the product's code correctness and expected behavior.
- Reproduced 5+ Splunk **customer cases** and wrote automation unit test cases in **pyTest** to ensure no future occurrence will be there.
- Maximized project efficiency with **JIRA**, yielding a 15% task completion boost, and optimized collaboration through **Git**, reducing code conflicts by 20%.

Software Engineer Intern

January 2020 – June 2020

Crest Data Systems

Ahmedabad, India

- Developed a Splunk Add-on that focuses on collecting data from ThreatQ (security platform) via REST endpoints and store in Splunk indexes, Categorizing the data in different source types, parsing the data, and extracting important fields.
- Demonstrated advanced **server-side programming** skills by creating a configuration page using Splunk Add-on Builder, Rest API, and Python. Utilized robust **logging** mechanisms to capture and store warning and error information to enhance the script's reliability and ease of troubleshooting.
- Implemented 2 custom workflow actions using **REST APIs** and **Python script** in the Splunk add-on to interact with the third-party product.

Technical Skills

Programming Languages: Python, Java, Javascript

Web Technologies: HTML, CSS, React Native, **REST APIs, Django**, Node.js, Express.js

Tools and Technologies: Databricks, Tableau, Splunk, **AWS S3, AWS EC2**, version control (Git, Bitbucket), JIRA, CI/CD (Jenkins, Bamboo)

Databases: **MySQL**, MS SQL, NoSQL (MongoDB, Couchbase)

Operating Systems: **Linux**, Windows

Software: Microsoft SQL Server Management Studio, Postman, Visual Studio

Automation Testing: Pytest, Selenium

Education

Master of Science in Information Technology, Arizona State University, USA

January 2022 – December 2023

Coursework: Middleware Programming and Database Security, Systems Administration of UNIX, Cloud Architecture

GPA: 3.80/4.00

Bachelor of Technology in Information Technology, Nirma University, India

July 2016 - June 2020

Coursework: **Object Oriented Programming**, Operating Systems, **Data Structures**, Microservice architecture and Programming

Projects

Loan Application

- Developed a web application following the MVC (**Model-View-Controller**) architecture to efficiently manage user loans.
- Integrated MongoDB as the database to store user and loan data in the model, while utilizing HTML, PUG, and CSS for the view layer in front-end development. Documents contained data in JSON format in MongoDB.
- For the backend, harnessed Node.js and Express.js to create the controller layer, ensuring a well-structured and organized application

Insurance Management System

- Designed relational schema for 3 insurance categories: health, vehicle, and life insurance by building 15+ database tables including complex SQL queries, procedures, and a trigger to collect, process, and store data of 15TB. (**Database Design, SQL**).
- Created 2 buckets in the NoSQL cloud database for storing users and insurance-type data and added required queries to extract relevant information from data. (**Couchbase**)

Restaurant Management Application

- In a team of three built an Android application that can be used in restaurants to take orders efficiently. Used XML for front-end development and JAVA for back-end. Used firebase for authentication, mysql for the database. (JAVA, MySQL)

Secure Deployment of PHP Application with MySQL Database on Amazon EC2

- Implemented a secure deployment strategy for a PHP application on **AWS EC2**, including setting up a **MySQL** database from an SQL dump file, configuring application parameters using AWS Systems Manager Parameter Store, and securing backend systems to prevent unauthorized access.