



Bhargavi Poyekar

in/bhargavi-poyekar bpoyeka1@umbc.edu Mobile: +16674640096 Edison, NJ

CORE COMPETENCIES

- Competent in coding, testing and debugging. Noteworthy abilities include:
 - Ansible and Terraform** for automation of infrastructure deployment and management.
 - Python** Distributed System for Car booking.
 - Django** website for emotion-based music player with **Object Oriented Programming**.
 - Flask** API for calculating points from a receipt using **Docker** environment and **SOLID** principles.
- Certified as **AWS DVA-C02**, **AWS CLF-C02**, and **Terraform Associate (003)**.
- Proficiency in **Javascript, React, Ajax, MySQL, Linux, and Git** for full stack development and version control.
- Knowledge of **SDLC** with experience in **Agile and Test-Driven Development (TDD)**.
- Exceptional communication, interpersonal & analytical problem solving skills.

TECHNICAL SKILLS

Languages and Databases: Python, Java, C/C++, PHP, Go, JavaScript, SQL, HTML, CSS, MySQL, SQLite, MongoDB.
Frameworks: Django, Django-Rest, Laravel, Selenium, Node.js, React, Flutter, Android Studio, Scikit, TensorFlow.
DevOps and Cloud: Ansible, Terraform, AWS, Docker, Kubernetes, EC2, S3, Lambda, IAM, VPC, Route53, Vault.
Others: GIT, Linux, VSCode, Pytest, Matplotlib, Tableau, jQuery, Pandas, Numpy, Rest API, Ajax, Postman.

PROFESSIONAL EXPERIENCE

Systems Security Engineer, University of Maryland Baltimore County

Aug 2024 - Present

- Successfully adapted the On System Defender (OSD) application from **Windows to Linux** by modifying **C** components to work with **SQL user-defined functions**, resulting in a functional Linux version comparable to the Windows iteration.
- Designed and implemented **SQL procedures**, including CRUD operations and stack trace storage, optimizing the application's performance in handling system calls.
- Conducted comprehensive **unit tests** for ported SQL functions, achieving high reliability and performance.

Platform Engineer (Cloud) Intern, University of Maryland Baltimore County

Jun 2023 - May 2024

- Automated the deployment, configuration, and management of **50 Linux virtual machines (VMs)** using **Ansible** and **Python** scripts, integrating **SSH hardening**, **key-based authentication**, and **jump hosts** for secure remote access.
- Developed a **secure Django-based VM management platform**, implementing **role-based access control (RBAC)**, **SSL/TLS encryption**, and **secure session management** to prevent unauthorized access.
- Implemented **Ansible Vault** for secure credential storage, encrypting sensitive data and ensuring controlled access for over 100 students and faculty using the VM infrastructure.

Software Developer, Origin Cloud Tech

Jun 2020 - May 2022

- Developed a **scalable and modular** LMS platform using **Laravel MVC**, improving **user engagement by 2%**.
- Strengthened system security with **OAuth2** and **multi-factor authentication**, and integrated **REST APIs** for payments (PayPal, Razorpay), geolocation, and Zoom, boosting website efficiency by **40%** while implementing **caching strategies** to reduce API call latency.
- Built a **responsive and accessible** UI with **HTML5, CSS3, Bootstrap, and JavaScript**, improving user experience with **loading feedback** mechanisms such as skeleton screens and spinners.
- Designed a database architecture with **normalized** tables, **multi-table joins**, and optimized **SQL CRUD** queries, reducing query execution time by **10%**.

Website Developer Intern, Ask in City.

Jan 2020 - May 2020

- Boosted user experience and website functionality by designing and implementing new e-commerce features using **HTML, JavaScript, Ajax, and PHP**, along with secure SQL practices such as parameterized queries and prepared statements, leading to an **8% increase** in user engagement.
- Adapted to an **agile environment**, and enhanced **team collaboration**, reducing project completion time by 10 days.

PROJECTS

HDFS to S3 Secure Data Transfer Application (Python, Hadoop, AWS):

- Developed a **Python** application to automate file transfers from **Hadoop HDFS** to **AWS S3**, reducing manual data handling time by 50%. Implemented **IAM Role policies**, **STS AssumeRole** for temporary security credentials, and **client-side encryption**. Enhanced security by using **AWS SSM Parameter Store** to store sensitive credentials, replacing environment variables.
- Integrated **Amazon CloudWatch** to monitor file transfers, track errors, and log performance metrics. Configured **Amazon SNS** to send email notifications for transfer status updates (success/failure).
- Tech:** HDFS, S3 Bucket, IAM Roles, Python, boto3, GIT, Linux, CloudWatch, SNS, STS, SSM.

Token Manager (Replication, Atomic Semantics, Fail Silent model, Object Oriented Design):

- Developed a **multi-threaded client-server** application for token management with (1, N) replication.
- Deployed a resilient **read-impose-write-all** protocol, ensuring accurate maintenance of token state information and fail silent behavior for server nodes resulting in a 95% up time.
- Tech:** Golang, gRPC, Google Protocol Buffer, SHA-256, socket programming, Mutex, Multithreading.

EDUCATION

University of Maryland, Baltimore County - Baltimore, MD | MS in Computer Science | GPA: 3.85/4.0
Sardar Patel Institute of Technology, Mumbai, India | B.Tech in Computer Engineering | GPA: 4.0/4.0

Aug 2022 - May 2024
Aug 2018 - May 2022