MRUNAL YOGESH PATIL

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EDUCATION

Master of Science, Computer Science   **May 2024**
Indiana University-Bloomington, Bloomington, IN (**GPA: 4.0/4.0**)
Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming, Software Development Lifecycle

Bachelor of Engineering, Computer Engineering   **May 2020**
University of Pune, Pune, India (**GPA: 3.9/4.0**)
Relevant Coursework: Data Mining, Database Design, Computer Networks, Distributed Systems, Software Engineering

WORK EXPERIENCE

Teaching Assistant | **Indiana University-Bloomington**, Indiana, IN   **Aug 2023 - Present**
- **Courses**: Programming Languages and Programming Languages Principles. Collaborating on course material development and providing prompt, in-depth feedback to 50 students, enhancing their understanding of **functional programming** principles using **Racket** programming language.

Web Course Content Specialist | **Indiana University-Bloomington**, Indiana, IN   **Nov 2023 - Present**
- Working closely with course design experts and K-12 teachers for **formatting course content** on TheCN platform using **HTML** and **CSS** and providing technical support in online course design.

Jr. Software Engineer | **Cognizant Technology Solutions**, Pune, India   **Nov 2020 - Jun 2022**
- Implemented and maintained merchants' **payment gateway** with **Java-Spring Boot microservices** and **ANSI SQL** while adhering to architecture guidelines and supporting Agile SDLC.
- Analyzed and crafted software solutions for implementing **two-factor authentication** via Email OTP, **reducing fraudulent transactions** by approximately **15%**.
- Identified and resolved more than 20 bugs from the **front-end** code base using **Angular**.
- Generated design documents, managed project tasks with **Jira**, reviewed code using **SonarQube** and fixed code smells to ensure compliance with best practices and project requirements.
- Collaborated with team members to create a test suite using **JUnit** and **Mockito**, achieving **83%** code coverage.

TECHNICAL SKILLS

Web Development: Spring Boot, RESTful APIs, Flask, HTML, CSS (TailwindCSS), Bootstrap, Angular

Programming Languages: Java, Python, JavaScript, C++, Racket (Lisp)

Databases: (SQL) MySQL, (NoSQL) MongoDB, Neo4j, Firebase

DevOps & Engineering Tools: CI/CD (Jenkins), Scrum, Jira, Cloud (AWS), Docker, Git, JUnit, Mockito, Kubernetes

PROJECTS

CI/CD Pipeline using AWS for Community Connect
- Automated deployment of code releases from GitHub by building CI/CD pipeline with AWS CodeBuild, CodeDeploy, CodePipeline and EC2, reducing deployment time by 50%, ensuring reliability and saving costs.
- Built a neighborhood bulletin board using Java and AWS Lambda, S3, RDS and SNS for enabling important communication between neighbors, including the ability to trigger email notifications for high-priority posts.

Return Order Management
- Led a team of four in developing microservices to simplify return order processing using Maven, Spring Boot, Hibernate, REST APIs with JSON, and service discovery.
- Orchestrated deployment of microservices on AWS Elastic Beanstalk, reducing processing time by 30%.

UniMatch: University Recommendation System
- Implemented KNN algorithm to develop a personalized university recommendation system aiming to simplify university shortlisting for students by using Flask, scikit-learn, pandas and NumPy, achieving 86% accuracy.
- Led preprocessing for student profile data scraped from multiple sources, improving data quality by 60%.
- **Honorable Mention & Most Creative Application Award.**

Google Play Store Data Design
- Modeled Google Play Store data and demonstrated different user scenarios with MySQL and Neo4j queries.

CERTIFICATIONS

Google Python Crash Course | Google IT automation - Python | Google Analytics for Beginners | Udemy Advanced Java