# Mihir Rana

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## Skills

**Programming Languages:** Java, JavaScript, TypeScript, Python, HTML, CSS, Bash, SQL
**Frameworks/Services:** Spring Boot, ReactJS, AngularJS, NodeJS, Tailwind, Selenium, WebdriverIO
**DevOps:** Kubernetes, Docker, Helm, Jenkins, Linux, Unix, PowerShell
**Cloud Technologies:** AWS (EKS, EC2, RDS, Lambda, S3, SQS, SNS, Step Functions, CloudFormation, CloudWatch)
**Databases:** MongoDB, PostgreSQL, Aurora, DocumentDB, MySQL
**Tools/Platforms:** Git, GitHub, Splunk, Bitbucket, Jira, Wireshark
**Software Development Practices:** Agile, Scrum, SDLC, OOP, RESTful APIs, CI/CD, Database Design
**Certification:** AWS Certified Cloud Practitioner

## Professional Experience

**Mastercard**                                                                                                                    New York, NY
*Software Engineer II*                                                                                              *April 2024 – Present*

- Spearheaded the migration of 20+ Spring Boot microservices supporting cross-border payment systems to AWS cloud infrastructure, applying Data Engineering and Data Modeling principles to ensure data integrity and scalability
- Cut infrastructure costs by $1 million USD by replacing development VMs with Docker containers. This enabled local execution of Spring Boot and Python services, and improved microservice startup time, response latency, and developer productivity by 25%
- Revamped and scaled Helm-based deployment processes for Kubernetes on AWS EKS, automated pod orchestration using AWS CodeBuild, and reduced manual deployment time by over 30%
- Integrated Shell scripting to automate PostgreSQL dump restoration and adopted Python to trigger Jenkins pipelines via the Jenkins API, reducing manual deployment efforts by 20%
- Piloted the AWS migration of an Odoo-based customer onboarding system utilizing a PostgreSQL database, supporting financial payment setup and account provisioning, and reducing deployment time by 10%
- Collaborated with product managers, engineers and architects across 5+ teams in an Agile environment, participating in project planning sessions to support the successful migration of cross-border payment services to 4 AWS environments
- Ensured code quality and security by integrating SonarQube for static analysis and Black Duck for open-source dependency scanning, while maintaining 90%+ test coverage through unit testing with JUnit and Mockito

**ADP, Inc.**                                                                                                                        Roseland, NJ
*Associate Software Engineer*                                                                              *February 2022 – April 2024*

- Developed 3 client-facing full-stack applications with Java, ReactJS, NodeJS, AWS, and MongoDB. These applications cater to clients, partners, business analysts, and enterprise architects
- Leveraged AWS Lambdas to optimize 7 REST APIs which resulted in 20% faster response times and decreased user wait times by 5 seconds
- Migrated 4 on-premises microservices from Express.js to AWS Step Functions, leading to an 11% decrease in monthly operating expenses
- Managed a shared library of reusable responsive UI components, which reduced development time by 35% and ensured a consistent look and feel across related applications
- Created end-to-end tests utilizing WebdriverIO with Cucumber to ensure consistent test coverage in the range of 80% to 85%

## Education

**New Jersey Institute of Technology**                                                                                      Newark, NJ
*Bachelor of Science in Computer Science, GPA 3.8*                                          *December 2018 – December 2021*

## Projects

**Smart Parking Application**
- Led a team 4 person team to create a ReactJS proof of concept for Aurora, Illinois. The application enabled citywide parking registration using chosen lot layouts and collected real-time data via parking place pods

**Income/Expense Tracker Web App**
- Built a Flask-based Python and ReactJS application enabling Google login for user profiles, expense management, sorting, and visualizing income/expenses with bar and line charts

**U.S. CITIZEN**