Vivek Tiwari

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SUMMARY

Senior Software Developer with 10+ years of experience across infrastructure, security, and back-end engineering in both cloud and on-prem environments. Domain experience includes climate tech, healthcare, and security from roles at Fortinet, Motorola, Zscaler, and Oracle. AI enthusiast who builds SaaS and e-commerce applications using Claude, Cursor, and modern AI development tools—focused on creating secure, scalable, and intelligent software that improves developer and customer experiences.

EXPERIENCE

Principal Member of Technical Staff

Oracle   **May 2024 – Present, Redwood City, CA,USA**

Oracle is an integrated cloud application and platform services that sells a range of enterprise information technology solutions.

· Led the effort in **QHIN conformance testing**, achieving **RCE certification** by ensuring complete compliance with Sequoia specifications.
· Directed external participant testing to verify that OHIN (Oracle Health Information Network) executed **all XUA transactions** in full alignment with partner networks.
· Designed and delivered the **SMART v2 implementation**, setting the foundation for future integration and interoperability.
· Initiated and developed the **QHIN Simulator**, aligning it with Sequoia testing specifications and preparing it for CI/CD integration to reduce manual testing by 30%.
· Built **reusable automation scripts** for security and transport validations, streamlining end-to-end gameday testing, reducing manual verification time, and saving 1 day per person's effort.
· Resolved key infrastructure issues, including **Dockerfile configuration fixes**, enabling the stable execution of initiation tools.

Sr Software Developer

Zscaler   **February 2024 – May 2024, Vancouver, BC, Canada**

Zscaler is a global cloud-based information security company that enables secure digital transformation for mobile and cloud.

· Key member of the **Data Loss Prevention (DLP)** team, identifying system bottlenecks and implementing optimizations that improved performance by **5% within five months**, earning **high executive appreciation**.

Sr Software Developer (Climate Tech/Sustainability)

BMO Radicle   **November 2021 – January 2024, Remote, Canada**

· Leveraged TensorFlow and Python to construct a linear regression model applied to carbon footprint estimation and energy consumption optimization for customers and climate-smart advisors.
· Integrated third-party energy data providers via webhook APIs to automate aggregation of energy consumption data using Ruby on Rails, simplifying data collection processes for Climate-smart advisors.
· Decreased software release time from > 5 hours to < 2 hours by migrating tech stack from Ruby(Rails) to Python(Django) and CI/CD from Ansible to GitHub Actions. Build the CI/CD pipeline on Github from scratch.

Sr Software Developer (Access Control)

Motorola Solutions   **November 2018 – October 2021, Vancouver, BC, Canada**

· Led a team of 2 to deliver on time-critical features i.e User Authentication/Authorization (JWT), Rate Limiting(iptables), and uploading self-signed SSL certificate (OpenSSL-X509) for Access Control Manager(ACM) with RESTful APIs (Ruby on Rails). Saved millions in revenue by mitigating attacks and customer support time by enabling the SSL upload feature.
· Transformed a monolithic application into microservices using Docker, facilitating communication through REST APIs to enhance scalability and strengthen development environment resilience.
· Reduced report generation time from 20 minutes to under 5 minutes by leveraging Redis caching, batching API calls, and running the process asynchronously.

Software Developer (Access Control)

Motorola Solutions   **September 2016 – October 2018, Vancouver, BC, Canada**

· Improved post-analysis for Rspec Automation Framework and expanded System/Hardware testing solutions by adding Raspberry Pi to automate card swiping. Saved 2 days of effort per person. Resulted in increased team effort for automation and post-analysis.

- Developed and integrated web sockets in Ruby on Rails to connect Biometric (Virdi) systems with Access Control Manager, facilitating seamless real-time authentication processes.

Software Developer (Sandbox/Data)

Fortinet   **May 2014 – August 2016, Vancouver, BC, Canada**

- Architected and deployed a cutting-edge, highly available web application (Web Filtering) on AWS utilizing Elastic Beanstalk. Pioneered the team's immersion in AWS as a versatile SaaS platform, effectively harnessing the system to quantify the sniffer engine's performance and promptly detect malicious samples.
- Analyzed and debugged TCP/IP and HTTP traffic and wrote a Test Automation framework to improve the isniff engine performance, achieving approximately 90% accuracy. Implemented this automation in Python using Scapy and Pytest.

PROJECT

Mirco SaaS/Directory Service/E-Commerce

Solopreneur

- Building (stealth) micro-SaaS applications in the e-commerce and directory service domains, leveraging AI-assisted coding tools (Claude, Cursor) to accelerate prototyping and reduce development time.
- Developed minimum viable products (MVPs) ready for public launch, emphasizing automation, rapid iteration, and seamless user experience design
- Evaluated and customized modern UI/UX frameworks (e.g., Lovable, Next.js) to create responsive, fast-loading front-ends for consumer-facing platforms.

EDUCATION

MASc, Electrical and Computer Engineering

University of Victoria · CA, BC, Victoria · 2012

B.Tech in Electronics and Communication Engineering

National Institute of Technology, Durgapur · WB, India · 2009

CERTIFICATIONS

Supervised Machine Learning: Regression and Classification

Coursera · 2023

- https://coursera.org/share/6f91b4040d8f84385d91e7b312e430d8

Advanced Learning Algorithms

Coursera · 2023

- https://coursera.org/share/1525a04420ada5b95f6dc69adc9b1b85

SKILLS

Ruby(Rails), Python(Django/Flask), NodeJS, Java, Bash, Typescript, Perl, PHP, C/C++, Powershell (Windows, Linux, Mac)
Version Control

Team Demos/Presentation, Workshop, Scoping, Planning, Documentation, Customer Focus

REST API, Postman/Swagger(API Testing), TensorFlow, AWS/OCI, CI/CD, Telemetry(ELK/Grafana), Docker/Kubernetes, RabbitMQ, OWASP