VED PATEL

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EDUCATION

Computer Engineering Technology - Computing Science   **January 2023 - April 2025**
Advanced Diploma
Algonquin College, Ottawa, ON

Relevant Coursework: Java Application Programming, ASP.NET Core, Network Programming, BI and Data Analytics, C++ Programming, Software Design and Testing, Real-time Programming.

GPA: 3.54/4.0 - Dean's Honor List.

EXPERIENCE

Assisted Software Developer   September 2024 - April 2025
Communications Security Establishment Canada   *Ottawa, ON*

- Collaborated in a team of three to build a secure Kubernetes-based marketplace, helping CSE employees to reduced search time by 50% and access critical internal processes.
- Designed and deployed custom CRDs and Java services to convert YAML process files into JSON, enabling real-time data retrieval for a React.js front-end secured by Auth0.
- Communicated with clients to refine requirements, participated in Agile sprints using Jira, and contributed to sprint planning, stand-ups, and sprint reviews.

Backend Engineer Intern   May 2022 - November 2022
Hitech Digital Solutions   *Ahmedabad, Gujarat, India*

- Maintained the company's internal employee website using Node.js, Python, MySQL database and GitLab.
- Optimized back-end APIs, improving system response time by 25% and ensuring secure, scalable data access.
- Collaborated with cross-functional teams, resolved technical issues, and contributed to Agile sprints.

PROJECTS

NYPD Complaint Data Analysis: Led a team of six to analyze 400,000 NYPD complaint records, uncovering key crime trends to support law enforcement decision-making. Utilized RapidMiner for data cleaning and modeling, applying various machine learning techniques such as KNN, Decision Tree, Random Forest, Clustering, and Outlier Detection to enhance anomaly detection. Developed interactive visualizations in Power BI, identifying high-risk areas and helping the NYPD better understand crime patterns. Delivered strategic recommendations that supported improved resource allocation and more effective crime prevention measures.

Slider Web Game: Led a team of four to develop a Java-based web application with role-based authentication and multi-platform support across web, mobile, and desktop. Built core functionalities using Java, RESTful APIs, JSF, React, Kotlin, Java Swing, and MySQL. Implemented authentication with password hashing and access control based on user roles: admins (full access), RESTful users, and JSF users. Developed a dynamic React page with HTML5 Canvas animations for custom slider management. Created companion applications for Android using Kotlin and desktop using Java Swing. Automated testing with Selenium and JUnit achieved 95% test coverage.

SKILLS

Programming Languages	Java, Python, Typescript, JavaScript, SQL, Bash scripting.
Web Technologies	React, NextJS, NodeJS, Tailwind CSS, RESTful APIs, Auth0.
Data Analysis & Visualization	Power BI, Tableau, Excel (PivotTables), RapidMiner, Weka.
Databases	PostgreSQL, MongoDB, MySQL.
Tools & Testing	GitLab, GitHub, Jira, VS Code, Postman, JUnit, Selenium.
DevOps & Cloud	CI/CD, Docker, Kubernetes, AWS, Azure.