

Aarya Patel

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EDUCATION

University of Western Ontario

BESc. in Software Engineering

London, ON, CA

2021 – 2025

- **Awards:** Western University Scholarship of Distinction 2021, Dean's Honor List Recipient for 2024-2025
- **Coursework:** Data Structure and Algorithm for Object-Oriented Design, Scripting Programming Language Fundamentals, Software Design, Software Construction, Web Technology, Software Project & Process Management, Software Requirements & Analysis, Database Management Systems, Data Analytics, Cloud Computing, Information Security.

EXPERIENCE

IT Support Technician

Quantum Lifecycle Partners LP

North Bay, ON, CA

June 2025 – Present

- Diagnosed and repaired 20+ devices weekly, contributing to a 35% reduction in e-waste through secure reuse and recycling initiatives.
- Achieved a 90%+ first-pass repair success rate by executing detailed diagnostics, hardware replacements, and OS configurations in alignment with quality standards.
- Maintained detailed system logs and collaborated with cross-functional teams, ensuring 100% SLA compliance and improved traceability across repairs.

Software Developer

IDSIL – Intelligent Data Science Lab

London, ON, CA

September 2024 – April 2025

- Developed Genescope, an AI-powered DNA/RNA analysis platform, reducing bioinformatics analysis time by approximately 35% by integrating the CPS2 algorithm for conserved sequence and structure pattern recognition.
- Integrated an AI insights model using GPT-2, providing automated contextual analysis and summarization of DNA/RNA results, improving interpretability for researchers by 40%.
- Fortified Genescope's data security by developing a validation system, filtering 99.9% of corrupted or non-standard DNA/RNA sequence uploads, ensuring data integrity for analysis and reducing downstream errors.
- Built a scalable backend infrastructure with MongoDB and AWS EC2, increasing data processing capacity by 2x to handle concurrent analysis efficiently.

Security Data Analyst Extern

Extern – Webacy Web3 Security Data Analytics Externship

London, ON, CA

July 2024 – August 2024

- Analyzed and labeled 900+ smart contracts for vulnerabilities, improving threat detection accuracy by 15%.
- Validated peer-generated data labels, increasing dataset reliability and reducing error rates by 10%.
- Performed frequency and correlation analysis of risk tags, identifying the most common vulnerabilities and their associations, improving risk profiling.
- Utilized unsupervised machine learning techniques for cluster analysis, uncovering patterns in smart contracts that contributed to a 12% improvement in risk prediction models.

PROJECTS

NPO Website | ReactJS, ViteJS, MongoDB, JavaScript, HTML, CSS, Flask

- Built and deployed a Vite-React platform with a Flask backend and MongoDB Atlas integration, enabling secure data access for 50+ caregivers and real-time content management for administrators.

Cinema Showcase Website | Python, Flask, MySQL, JavaScript, HTML, CSS

- Developed a full-stack cinema platform with account management, movie search, ticketing, and admin tools, optimizing MySQL queries for 30% faster response times.

TECHNICAL SKILLS

Programming Languages: Python, JavaScript, TypeScript, Java, C++, C, PHP, R, SQL, MySQL, HTML, CSS, ARMv7 Assembly, JavaFX

Web & Application Frameworks: Flask, React, Angular, Vite, Node.js, .NET, Flask-CORS, Jinja2

Data Science & Machine Learning: scikit-learn, Pandas, NumPy, GPT-2, unsupervised learning, classification models, neural networks, feature engineering, data preprocessing, model evaluation, statistical analysis

Cloud & DevOps: AWS (EC2, S3), Google Cloud Platform (Vertex AI, BigQuery, Workbench), Microsoft Azure, Docker, Kubernetes, Apache Airflow, Vertex Pipelines, Cloud Storage Buckets

Databases: PostgreSQL, MongoDB, MongoDB Atlas, MySQL, SQL, Oracle, BigQuery

Tools & Platforms: Git, GitHub, Tableau, QGroundControl, Ubuntu, VS Code, Postman, REST APIs, Vertex AI Workbench, Apache Airflow, Bash, Figma

Software & Design Methodologies: Agile (Scrum), CI/CD pipelines, version control, data validation & security, scalable system design, backend optimization, responsive web design, RESTful architecture, secure file upload handling, cloud-native architecture