

NAKUL PATEL

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EDUCATION

Wilfrid Laurier University

Graduating Aug 2027 | Available Sep 2027

Bachelor of Computer Science, Big Data & Business Administration, Finance

Waterloo, ON

- Courses: Software Engineering, Artificial Intelligence, Machine Learning, Data Mining, Programming for Big Data, Operating Systems, Algorithms and Analysis I, Data Structures I and II, Computer Networks, Object-Oriented Programming

WORK EXPERIENCE

D2L — Software Developer Intern

Sep 2026 – Dec 2026 | Kitchener, ON

- Building full-stack features on D2L's **Brightspace** platform across a **microservice** backend and modern web frontend, shipping **cloud-native** services and RESTful APIs through automated **CI/CD** in an Agile team.

Multiverse Computing — Machine Learning Engineer Intern

Sep 2025 – Dec 2025 | Toronto, ON

- Engineered an end-to-end ML pipeline in **Python** with strict chronological validation to prevent leakage, forecasting player performance via **XGBoost** and **quantile regression** across **13** season-over-season targets.
- Built probabilistic forecasts by training **Gaussian XGBoost regressors** and running **Monte Carlo simulations** to produce multi-year trajectories with calibrated prediction intervals for risk-style scenario analysis.
- Applied **K-Means clustering** to segment simulated outcome distributions into interpretable player archetypes, deploying **Streamlit** apps surfacing feature importance and per-forecast reliability scores.
- Architected a production analytics platform on a **Next.js** frontend and **FastAPI** backend, serving ML pipelines through **containerized inference endpoints** for a client-facing player evaluation interface.

Definity Financial Corp. — Automation Engineer Intern

Jan 2025 – Apr 2025 | Waterloo, ON

- Developed and maintained automated test scripts for mobile and web applications using **Java**, **JavaScript**, and **XML**, increasing test coverage by **35%** and reducing manual testing efforts by automating repetitive test cases.
- Integrated test suites into **CI/CD pipelines** with **Git**, reducing regression testing time by **40%**, enhancing deployment efficiency, and minimizing the risk of production defects through continuous validation and automated quality checks.
- Automated **JIRA** query extraction using **VBA**, streamlining sprint and release reporting by calculating key performance metrics, driving a **25% improvement** in release planning accuracy.

Riipen Networks Inc. — Software Developer Intern

Jan 2023 – Apr 2023 | Toronto, ON

- Developed a cross-platform web application by building backend services in **Node.js** and running mobile tests in **Xcode**, collaborating with senior engineers through pair programming and UAT to ship production features.
- Engineered high-performance UI components in **React.js** and **JavaScript**, improving responsiveness by **20%**, and automated workflows using **Python** and **Java**, including a RegEx-based grading algorithm.

PROJECTS

Amber - AI-Powered Hiring Platform | Co-Founder | GitHub

Next.js | **FastAPI** | **Supabase** | **Python**

- Architected and built a full-stack hiring platform end-to-end, owning system design, database schema, and API contracts across a **Next.js** client and **FastAPI** microservice backend.
- Designed an **AI matching engine** scoring bidirectional candidate-company fit across technical skills, role requirements, and **LLM-derived personality profiles** extracted from open-ended candidate responses.
- Built real-time connection and scheduling pipelines on **Supabase** with authentication and **row-level security**, powering live candidate and recruiter **dashboards** across both sides of the marketplace.

Swish - NBA Game Predictor | GitHub

Python | **Scikit-Learn** | **XGBoost** | **Playwright**

- Built an end-to-end ML pipeline forecasting NBA outcomes from nine seasons of scraped box scores, engineering **rolling form** features and reconciling per-team predictions into **calibrated win probabilities**.
- Benchmarked **XGBoost** against a **regularized linear model** under **time-series CV** and **walk-forward** season back-testing, reaching **63% accuracy** overall and **74%** on high-confidence predictions.

TECHNICAL SKILLS

Languages: Python, Java, VBA, SQL, HTML5, CSS, JavaScript, C, C++

Developer Tools: AWS, Azure, Docker, Git, Jira, Power BI, GitHub, GitLab, CircleCI, Gradle, Linux/Unix, JupyterLab

Libraries/Frameworks: React, Next.js, Node.js, Supabase, FastAPI, Pandas, Scikit-learn, TensorFlow, PyTorch, Streamlit

Hard Skills: Artificial Intelligence, Machine Learning, CI/CD Pipelines, RESTful APIs, Cloud Architecture, Deep Learning

Interests: Music, Chess, Gym, Basketball, Travelling, Superheroes, Video Games, Meditation, Hiking