

# ANSH RASTOGI

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## EDUCATION

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### University of British Columbia

2026

- Bachelor of Arts in Computer Science
- Minor in Data Science

## SKILLS & INTERESTS

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| <ul style="list-style-type: none"><li>• Python</li><li>• SQL</li><li>• Tableau</li><li>• Java</li><li>• Java Script</li><li>• C++</li><li>• R</li></ul> | <ul style="list-style-type: none"><li>• HTML</li><li>• Bootstrap</li><li>• Markdown</li><li>• Next.js</li><li>• TypeScript</li><li>• TailwindCSS</li><li>• Docker</li><li>• Git</li></ul> | <ul style="list-style-type: none"><li>• Analytical Thinking</li><li>• Problem-Solving</li><li>• Effective Communication</li><li>• Team Collaboration</li><li>• Adaptability</li><li>• Time Management</li><li>• Leadership</li></ul> | <ul style="list-style-type: none"><li>• Critical Thinking</li><li>• Data-Driven Decision Making</li><li>• Creative Thinking</li><li>• Project Management</li><li>• Public Speaking</li><li>• Cross-Cultural Communication</li><li>• Attention to Detail</li></ul> |
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## WORK EXPERIENCE

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### Chapters International

2020-2021

#### Data Analyst Intern

- Collected and analyzed data from schools worldwide to assess participation in educational workshops, identifying trends and areas for improvement.
- Utilized Excel for data cleaning, organizing, and visualization, leveraging pivot tables, VLOOKUP, and advanced formulas to extract key insights.
- Created automated reports and dashboards in Excel to track participation metrics, improving data accessibility for decision-making.
- Used data-driven insights to optimize teacher training programs, ensuring more effective content delivery and engagement.
- Conducted outreach to expand the company's network of partner schools, leading to increased participation in educational initiatives and improved collaboration opportunities.

### Phillip Capital India

2024-2025

#### Software Development Intern

- Developed sentiment analysis tools for the Phillip9 Application to evaluate and visualize financial news sentiment, providing actionable insights for traders.
- Created Python scripts leveraging TextBlob and VADER for sentiment scoring, incorporating dynamic input parameters and enhanced filtering mechanisms to generate customized sentiment reports.
- Integrated data collection using both NewsAPI and RSS feeds for comprehensive news coverage, improving the accuracy and relevance of sentiment analysis.
- Employed pandas for efficient data processing, structuring, and visualization of collected news data.
- Designed a front-end interface and implemented server-side logic using Flask to build an interactive web application for real-time sentiment computation.
- Automated environment setup and data handling scripts to streamline workflows and ensure scalable sentiment analysis operations.

### Profectus Capital India

2025

#### Data Analyst Intern

- Upgraded and optimized multiple AWS Lambda functions by migrating codebases to the latest Python version, updating dependencies, and refactoring integration with shared Layers, ensuring compatibility and improved execution performance.
- Collaborated with the engineering team to test and validate Lambda updates in production, troubleshooting dependency issues and reducing runtime errors.
- Designed and implemented SQL scripts to automate database updates, recording whether users requested customer CIBIL report downloads with a simple "Yes/No" flag, improving the accuracy of compliance reporting.
- Enhanced data integrity by validating logic across customer transactions and optimizing query performance, reducing manual intervention and streamlining reporting.
- Strengthened technical skills in AWS Lambda, Python (3.13), SQL, dependency management, and debugging, while gaining hands-on experience with financial data operations in a real-world environment.

## PROJECTS

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### F1 Intelligence Hub: Full-Stack ML Engineer

2026

#### Personal Project

- **Architected and delivered a production-grade Formula 1 analytics hub (FastAPI + Next.js) integrating real-time data pipelines, ML predictions, and interactive visualizations for race strategy insights.**
- **Designed a scalable data layer (PostgreSQL + pgvector, 18-table schema) with Celery + Redis pub/sub and WebSocket streaming to provide real-time updates to concurrent users.**
- **Built a 1,400+ feature engineering and training pipeline; deployed 4 XGBoost/LightGBM models achieving  $R^2$  0.757 for lap-time forecasting and ROC-AUC 0.741 for overtake probability, served via <1s APIs.**
- **Implemented reproducible MLOps workflows (Docker Compose, GitHub Actions, MinIO model registry, strict typing + Pydantic validation) to improve reliability, versioning, and deployment consistency.**

### Mining Digital Work Artifacts — Portfolio/Resume Generator | COSC 499

2025

#### University of British Columbia

- Collaborated in a team of 6 to build a cross-platform (Windows/macOS) desktop app that mines students' local digital work artifacts to generate portfolios/resumes and highlight contribution, skills growth, and productivity trends over time.
- Engineered a Python backend using FastAPI + SQLAlchemy + SQLite (local encrypted storage), implementing robust parsing for Git/codebases (Python/Java/C++), documents (PDF/DOCX), and media to extract metadata, LOC, functions/classes, and per-contributor metrics.
- Integrated Google Gemini Pro for long-context semantic code reviews (architecture, complexity, security, skill maturity), including automated upload/deletion workflows, explicit consent gates, audit logs, and secure deletion receipts to support privacy-first compliance.
- Built an Electron + React (Vite) dashboard with skills timelines, activity heatmaps, top-project showcases, and a one-page resume generator with PDF/HTML export, plus incremental ingest + deduplication and human-in-the-loop curation (re-ranking, role tagging, evidence linking).

### Full Stack Developer

#### UBC Computer Science Project

- **Developed** a responsive ToDo application using Next.js, TailwindCSS, and TypeScript, ensuring an intuitive and seamless user experience.
- **Integrated** Supabase for real-time database operations and user authentication, enabling secure and efficient data management.
- **Optimized** CI/CD workflows with GitHub Actions and deployed the application on Heroku, streamlining the development process and ensuring reliable performance.

### Hackathon Project – Scholar Space Finder

2024

#### University of British Columbia

- **Collaborated** in a team at a codingclub@SUO hackathon to design and develop a web application using JavaScript, Supabase, and the Google Maps API.
- **Built** Scholar Space, a real-time study space locator that helps students find available tables on campus, enhancing study efficiency.
- **Implemented** live table tracking and an intuitive user interface, making it easier for students to navigate and secure study spots, significantly improving campus study experiences.

### Nomad X – AI-driven Travel & Activity Planning App | COSC 341

2025

#### University of British Columbia

- **Developed** "Nomad X," an AI-driven travel and activity planning mobile app using Flutter and Dart with Firebase Authentication and Cloud Firestore backend; collaborated in a team of four to implement personalized activity recommendations (age, interests, location), advanced search filters, detailed activity views, booking/reservation workflows, and user profile management.
- **Enhanced** UX through heuristic evaluation, adding an undo navigation option on the contact-info screen and dynamic visual feedback on payment choices to streamline the booking flow and reduce user errors.

### COSC 322 Game of Amazons Project | COSC 322

2025

#### University of British Columbia

- **Collaborated** in a team of five to design and implement an interactive strategy game using Java and JavaFX, architecting core gameplay mechanics, state management, and graphical rendering.
- **Developed** and integrated an AI opponent powered by Monte Carlo Tree Search (MCTS) with heuristic-guided playouts and adaptive simulation depth to optimize move selection in real time.
- **Conducted** iterative playtesting and heuristic evaluation to refine UI/UX, adjusting game difficulty levels, adding intuitive visual feedback and animations to enhance player engagement and minimize user errors.