

Avi Sharma

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EDUCATION

University of British Columbia

Bachelor of Science, Computer Science GPA: 3.7 / 4.0

Vancouver, BC

May 2026

Awards: Faculty of Science International Student Scholarship (2025 Winter), Dean's List (2021, 2024, 2025)

Relevant Coursework: Statistics & Probability, Machine Learning, Regression Analysis, Databases

EXPERIENCE

Tencent

Jun 2025 – Nov 2025

Data Analyst

Vancouver, BC

- Owned end-to-end KPI tracking for a live game's new-player first-time user experience, analyzing onboarding funnel drop-off in Power BI and Python to drive UI and gameplay changes that lifted new-player retention by 12% in one month.
- Modeled post-update churn across 50,000+ existing-player sessions using XGBoost, ranking the top churn drivers with SHAP values to guide targeted combat and weapon updates.
- Architected a Python ETL pipeline integrating Jira, Excel, and Amplitude into Power BI, standardizing KPI definitions across 5 live game studios (5,000–20,000 DAU) and automating 8+ reporting workflows.

Later

Jan 2025 – May 2025

Data Analyst

Vancouver, BC

- Built dbt pipelines for daily Amplitude-to-BigQuery ingestion, reducing ingestion errors by 18% and cutting cloud costs by over \$10,000.
- Engineered a regression-based incentive model and shipped it as an internal React + Flask tool, replacing manual Excel-based quoting for a 10-person finance team supporting 1,000+ clients.
- Designed schema architecture and authored 10+ standardized SQL templates for a centralized data library, establishing a single source of truth and eliminating conflicting data outputs across 4 teams.

SPIN Lab, UBC

May 2024 – Jan 2025

Undergraduate Research Assistant

Vancouver, BC

- Analyzed ECG, heart-rate, respiration, and motion-sensor data from 20 participants across 25 hours of recordings, supporting an emotion-regulation study within a five-person research team.
- Built a Python signal-processing pipeline using bandpass filtering, artifact rejection, and peak detection to extract heart-rate variability and breathing-rate features for downstream statistical analysis.

Department of Computer Science, UBC

Sep 2024 – Dec 2024

Teaching Assistant

Vancouver, BC

- Mentored 300+ students in designing and optimizing database-backed applications with Oracle, PHP, and Java, emphasizing relational data modeling, schema design, and query optimization for CPSC 304: Introduction to Relational Databases.

UBC Office of Enterprise Risk and Assurance (ERA)

May 2024 – Aug 2024

Data Analyst

Vancouver, BC

- Developed a Python-based search tool over 10,000+ flagged emails, combining keyword and contextual filtering to reduce fraud investigation timelines from 2–3 weeks to under 1 week.
- Built 3 Power BI dashboards tracking 7 key risk indicators, reducing weekly reporting time by 2–3 hours and enabling real-time visibility into emerging risks.

University of British Columbia

Sep 2022 – Apr 2023

Software Developer

Vancouver, BC

- Shipped 5 production web modules in Yii2 (PHP) with JavaScript, supporting 100+ daily users, and cut page-load times by 30% by optimizing PL/SQL queries and introducing server-side caching.

PROJECTS

Buffer Pool Locality Simulator | Rust, Python

- Built a Rust buffer pool simulator with a 64-frame clock replacement policy, tracking co-access patterns and reclustering tables by solving Minimum Linear Arrangement over 720 permutations to minimize weighted seek distance.
- Developed a Python visualization pipeline rendering buffer pool state and rolling performance metrics as a time-evolving GIF, demonstrating a 43% locality improvement with reclustering enabled.

TECHNICAL SKILLS

Languages: Python, SQL, R, TypeScript, Rust

Data & ML: Excel, Power BI, BigQuery, dbt, pandas, scikit-learn, XGBoost, Amplitude

Methods: A/B testing, cohort and funnel analysis, regression modeling, ETL pipelines