

GAURANG AHUJA

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SUMMARY

Software engineer with 7+ years building production systems, now applying that background to ML & AI engineering after a Master of Data Science. Recently built a hybrid RAG search assistant on Amazon reviews & an equity-focused analytics dashboard on 1.7M+ PISA records.

EXPERIENCE

Ultimate Kronos Group (UKG) | Lead Software Developer

Dec 2024 – Aug 2025 | Toronto, ON

- Cut regression pipeline runtime by 63% (4h to 1.5h) by eliminating redundant data generation & introducing repeatable, one-click execution
- Owned & maintained a core service responsible for promoting customer configurations from test environments to production
- Migrated deployment workflows from RightScale to GitHub Actions with DevOps, modernizing CI/CD & improving release reliability
- Supervised a team of 6 offshore contractors, prioritizing backlog & production issues based on business impact, risk & urgency

Ultimate Kronos Group (UKG) | Senior Software Developer (Promoted)

Dec 2021 – Nov 2024 | Toronto, ON

- Contributed to decomposing a monolithic application into domain-oriented Java microservices, improving service modularity & scalability
- Reduced defects & high severity incidents by ~30% by analyzing production trends/failure patterns & improving triage & routing workflows
- Mentored engineers on production troubleshooting, escalations & incident analysis, including a QA engineer's move into development

Ultimate Kronos Group (UKG) | Software Developer (Promoted)

Oct 2019 – Nov 2021 | Toronto, ON

- Built backend features & REST APIs for a workforce management application using Java, Spring Boot & MySQL
- Increased automated test coverage by 30% by adding unit, integration & acceptance tests (Mockito, Junit) in CI/CD pipelines
- Investigated production failures using application logs, SQL queries, & data analysis, coordinating cross-service fixes

Ericsson | Radio Software Developer

Oct 2017 – Oct 2019 | Ottawa, ON

- Converted MATLAB prototypes to production C++ for radio firmware, collaborating with systems engineers to debug & validate results
- Prevented shipment of 700+ faulty radio units by coordinating with supply team to intercept & reimage devices within one week

Apple | RF System Integration Engineering Intern

Sep – Dec 2016 | Cupertino, CA

- Improved Wi-Fi throughput rates 10-30% by modifying chipset drivers in C/C++ to calculate & validate throughput
- Integrated new, low-level Wi-Fi throughput tests into an RF automation system, cutting initialization time by 70% (65s to 17s)

SELECTED PROJECTS

Smart Amazon Product Query Assistant

- Built a hybrid RAG recommender over the Amazon All Beauty corpus (701K reviews, 112K products), fusing BM25 lexical retrieval & FAISS semantic search via Reciprocal Rank Fusion (RRF), with Llama 3.2 (via Ollama & LangChain) generating grounded recommendations
- Benchmarked Llama 3.2 against Phi-4-mini on natural-language product queries using identical retrieved context & prompt
- Scaled from a 5K-review prototype to the full corpus using an IVF index (32 of 256 clusters/query, ~8x fewer comparisons)
- Built a Streamlit interface with source attribution linking each recommendation to the ASINs & reviews behind it

PISA Equity Dashboard for Educational Testing Service (ETS)

- Built an ETL pipeline & Streamlit dashboard for ETS using Python, DuckDB & Parquet on 1.7M+ PISA student records (81 countries; 3 cycles)
- Implemented 2 dashboard modes, guided narrative & interactive explore, showing score distributions, percentiles & group comparisons
- Wrote a pytest suite with GitHub Actions CI for main & dev branch PRs, establishing reproducible validation & deployment workflows

Supply Chain Analytics Dashboard

- Built & deployed an interactive Shiny for Python dashboard on Posit Connect Cloud, with natural-language querying via the Anthropic API converting questions like "cheapest shipping routes" into data filters

EDUCATION

University of British Columbia | Master of Data Science (MDS)

2025 – 2026 | Vancouver, BC

- **Key courses:** Supervised & Unsupervised Learning, Deep Learning, Time Series, Statistical Inference, Bayesian Reasoning, DB & Retrieval
- **Academic Representative:** Advocated for assessment fairness & instructional quality using cohort feedback in faculty meetings

University of Waterloo | B.A.Sc. Electrical Engineering (Co-op)

2012 – 2017 | Waterloo, ON

- Dean's List & President's Scholarship | Exchange Semester at Nanyang Technological University, Singapore (Jan – Apr 2016)

TECHNICAL SKILLS

ML & AI: PyTorch, scikit-learn, Hugging Face, OpenCV

MLOps & DevOps: Docker, Kubernetes, Git, GitHub Actions, Jenkins, AWS

Monitoring & Observability: Splunk, Grafana, Datadog

Languages: Python, SQL, Java, C++, R

Data: pandas, NumPy, DuckDB, Parquet, PostgreSQL, MongoDB

Apps & Testing: Postman, Shiny, Plotly, pytest, Playwright