Jay Malhotra

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EDUCATION

McGill University, Desautels Faculty of Management — Montreal, Canada
Master of Management in Analytics — July 2026 – Present
- Entrance Scholarship

Bennett University — Greater Noida, India
Bachelor of Computer Applications, Specialization in Artificial Intelligence — Aug 2023 – May 2026
- CGPA 9.28/10; Dean's List Award; Merit Scholarship

PROFESSIONAL EXPERIENCE

Academic Analytics Consulting Project with Trench Group — Montreal, Canada
Data Engineer — Sept 2026 – Present
- Supporting a five-person team building machine scheduling, order delay prediction and capacity planning models for 23 coil winding and roving machines at a power transformer manufacturer
- Engineering the data pipeline over ~73,000 production orders and 1M+ production confirmations since late 2019, labelling late orders against promised crate dates

Perpex — Remote
Software Development Intern — Aug 2025 – Nov 2025
- Delivered two production-ready Django systems, a restaurant management platform and an Uber-style mobility platform, spanning 25+ REST endpoints for rides, payments and authentication

PROJECTS

Perfect Pair, BSRM x ALDO Retail Gen AI Hackathon (Prize Winner) — Montreal, Canada
Tech Lead, Team Code Reapers — Sept 2026 – Oct 2026
- Won a prize at the live final with an agentic returns system for ALDO Group that resolves returns in seconds and offers an exchange or store credit before a refund, keeping revenue a refund would lose
- Added a second agent that traces repeat returns to fixable causes, such as a product page that never warns a style runs narrow, grounded in 8.7M real ALDO transaction records
- Built the backend on Amazon Bedrock (Claude) with human approval gates, idempotent refunds and exchanges and replayable case audits; deployed on AWS EC2, covered by 38 tests and 19 scripted paths

AsOf, IBM Db2Hack 2026 (2nd Place, 5,000+ Participants) — github.com/JustJay7/asof
Solo Developer — Nov 2026
- Built a checker that verifies each policy claim in an AI assistant's answer against the policy version in force on the customer's date, correcting or holding wrong answers before a customer sees them
- Retrieved the right clause version in one SQL query with Db2 bitemporal tables and vector search, logged every decision to a hash-chained ledger, and released 0 of 65 wrong drafts on blind test sets

SkillGuard, Nebius x NVIDIA Global AI Hackathon — github.com/JustJay7/skillguard
Lead Developer, Two-Person Team — Oct 2026
- Built a safety gate that pauses a personal AI agent before it installs a self-written skill, tests the skill in an NVIDIA OpenShell sandbox with adversarial probes and blocks unsafe versions
- Blocked an unsafe skill that NVIDIA's static scanner rated 7/100 (safe) by catching 13 denied private-file reads at runtime, even though it passed all 12 task checks

Ayebot, AI Assistant and Campus Communication Platform for Universities — India
Founding Engineer — Jan 2026 – Present
- Secured a pilot with a tier-1 Indian private university, licensed per student per month
- Built the production platform across an API backend, Flutter Android app and Next.js admin console, with end-to-end encrypted messaging and a RAG assistant grounded in faculty knowledge

SKILLS AND INTERESTS

- **Key Competencies:** Agentic AI, RAG, LLM evaluation, machine learning, NLP, data engineering, system design
- **AI and ML:** LangGraph, LangChain, MCP, Amazon Bedrock, Google Vertex AI, NVIDIA Nemotron, NVIDIA OpenShell
- **Software:** Python, SQL, JavaScript (Node.js), C#, Java; pandas, scikit-learn, PyTorch; Django, Flask, Flutter, Next.js; PostgreSQL, SQLite, MySQL, Neo4j, IBM Db2; AWS EC2, Docker, Git
- **Languages:** English (native), Hindi (native)
- **Interests:** Self-taught guitar, cooking North Indian food, strength training