Jayansh Bagga

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EDUCATION

B.Sc - Major in Computer Science at University of Western Ontario   *Class of 2027* | London, Ontario
- Western International Scholarship of **($25,000)**, RBC Overhaul Case Competition **(Top 5).**
- **Relevant Coursework:** Information Systems *(SQL)*, Object-Oriented Design & Analysis *(Java)*, Software Engineering *(Java)*, Data Structures & Algorithms *(Java, C)*, Programming Languages *(Java, C)*, Theory of Computation, Discrete Math, Computer Systems & Architecture *(C)*, Statistics *(R)*, NLP & Data Analysis *(Python)*

WORK EXPERIENCE

J.D. Power   **Remote, Canada**
Quality Assurance Intern (Co-Op)   *May 2026 - August 2027*
- Incoming QA intern at J.D. Power, supporting quality assurance efforts across internal applications, data platforms, and client-facing tools used by **hundreds of enterprise clients globally**.
- Will contribute to QA processes for **data-driven and AI-enabled applications**, including test execution, defect tracking, and release validation, ensuring reliability and quality at enterprise scale.

Outlier AI   **California, USA**
Generalist Prompt Engineer   *September 2024 - May 2025*
- Developed and refined AI models through effective prompt engineering, contributing to various projects aimed at exploring innovative applications of artificial intelligence, resulting in a **10% increase** in the efficiency of model output accuracy.
- Collaborated with global research and engineering teams to develop generative AI solutions for diverse industries; contributed to productionizing NLP use cases, supporting enterprise deployments in a market where only **5%** of custom AI tools reach full production.

Carlo Romano   **Italy/ India**
Data Analyst Intern   *June – September 2024*
- Completed a 16-week internship at an esteemed Italian leather and shoe manufacturer company in integration with the Italy office.
- Developed effective data analysis projects using Python and SQL to automate the validation of User Experience and Feedback.

Sentiment Analysis on Carlo Romano's Indian Online-Shopping Customer Data.
- Developed a Natural Language Processing pipeline to automate the classification & analysis of over **20,000** customer feedback records.
- Processed large datasets to identify key trends in customer sentiments in the Indian market online-shopping users, enabling data-driven decision-making using python and libraries like Natural Language Toolkit (NLTK) and Pandas, increasing reporting speed by **30%.**
- Integrated SQL to manage and query the structured data, enhancing operational efficiency by delivering actionable insights to the marketing and product teams to perform analysis into and present to the upper-management teams.

PROJECTS

Savify Fintech App   **London, Ontario**
Founder | Technical Lead   *January 2025*
Project Link: https://savify.ca/
- Leading a **six-member** team in building a next-generation FinTech app focused on goal-based savings and personal financial wellness through machine learning insights and gamified user engagement.
- Architected and deployed the MVP website as a launchpad for early traction, showcasing key features like automated savings, spending analytics, and personalized goal tracking. Projected to onboard **500+ users** in the first month, scaling to **1,500+** active users post full backend integration and app release.
- TechStack utilized [React Native, Node.js, Express.js, MongoDB, Google OAuth, JWT Authentication, Postman, Styled Components, Expo EAS for cross-platform builds, and CI/CD pipelines for streamlined updates]

Semantic Cache Engine   **Toronto, Canada**
Project Link: https://github.com/thejayanshbagga/semantic-cache-engine
- Built a FastAPI-based semantic caching layer using vector embeddings and cosine similarity, reducing redundant LLM calls by **30–60%**, cutting response latency by **~40%**, and lowering unnecessary token spend.
- Originally developed as a technical take-home for Boardy (AI Super-Connector, **$8M seed-backed**), then generalized into a reusable LLM infrastructure engine with pluggable LLM and embedding backends, similarity thresholds, and cache invalidation logic.

Western Digital Society   **London, Ontario**
Member | Hacker   *October 2023*
Project Link: https://wds-overhaul-group-hakurei.vercel.app/
- Participated in various case competitions with banks and tech startup sponsorships and prizes.

InkLink – RBC X WDS Overhaul Hackathon Case Competition (Top 5).
- Conducted a thorough debugging of HTML & UI/UX code to enhance the functionality and aesthetic appeal of the website.
- Developed a comprehensive presentation encompassing both business and technical strategies to improve the company.

ADDITIONAL INFORMATION

Awards: CII's Most Popular Hackathon – National Winner | Founding Board Member – Research Association of Science Students |
Skills: Java | Python | C | SQL | JavaScript | Object-Oriented Programming (OOP) | Data Structures & Algorithms | Node.js | Express.js | FastAPI | REST APIs | MongoDB | AWS | Full Stack Development | JWT Authentication | Testing & QA | Postman | LLMs | Prompt Engineering | Natural Language Processing (NLTK) | Pandas | Matplotlib | React Native | Web Dev | English (Native) | Hindi (Native) | Spanish (Working Proficiency)