NIMRAT GREWAL

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Education

University of Toronto (St. George)　　　　　　　　　　　　　　　**Expected: Fall 2026**
Bachelor of Science in Computer Science, Statistics Minor (GPA: 3.6 / 4.00)　　　　　　*Toronto, ON*
Arts & Science Internship Program (ASIP) — Co-op Program | $2000 Admissions Scholarship

- **Relevant Coursework:** Data Structures and Algorithms, Software Design (Java), Systems Programming (C), Databases (SQL), Web Programming, Machine Learning, Computer Organization, Statistics, Calculus

Experience

Ontario Ministry of Education　　　　　　　　　　　　　　　**Sept 2024 – Present**
Software Test Engineer Intern　　　　　　　　　　　　　　　　　*Toronto, ON*
- Perform manual and automated testing for the **official Ontario curriculum website**, ensuring a seamless experience for **2000000+ annual users** on **MS Azure Cloud.**
- Collaborate with developers on **Azure DevOps** to resolve bugs, ensuring a quality user experience for the next release.

University of Toronto　　　　　　　　　　　　　　　**May 2023 – August 2024**
Data Science Research Assistant　　　　　　　　　　　　　　　　　*Toronto, ON*
- Led research on Algorithmic Bias and Misinformation in social media, focusing on adverse selection and competition.
- Analyzed news cycle tweet data with **Python, Matplotlib, Seaborn, and Pandas**, identifying key patterns between misinformation and non-misinformation tweets that informed the development of sub-hypotheses and testing strategies.
- **Implemented 50% of sub-hypotheses**, providing actionable insights into why misinformation disseminates.
- Conducted **fixed effects and first-difference** regressions in **R** to compare engagement modes and identify key predictors of misinformation spread versus high-quality content, validating the main hypothesis.

Oracle　　　　　　　　　　　　　　　**Sept 2023 – Dec 2023**
Functional Support Analyst Intern　　　　　　　　　　　　　　　　　*Mississauga, ON*
- **Boosted team case efficiency by 30%** by analyzing and resolving NetSuite software UI accounting-related issues, enhancing product knowledge and user experience.
- Facilitated client meetings and resolve concerns in real-time or off-call, achieving a **90% client satisfaction score.**
- Recognized as the best Co-op student in a cohort of 5 for outstanding work, participation, and performance.

Projects

Referral Management Platform | *React, Django, TailwindCSS, Docker, CORS, PostgreSQL*
- Built a **React**-based MVP using **TypeScript** and **MUI** as a **frontend engineer** to manage contacts and track referrals, cutting network analysis time by **30%** for sales professionals.
- Engineered UI components for application, boosting lead conversion through warm referrals for 20+ simulated connections

AccessConnect - AI ChatBot | *OpenAI API, Python, LlamaIndex, RAG, Streamlit, BeautifulSoup*　　⭘
- Developing a Python AI chatbot, funded with **$700**, enabling students to query info from UTSC Accessibility Office data
- Utilizing **LlamaIndex** and **OpenAI** to generate embeddings and construct a vector store for efficient document retrieval

Scriptorium - Web Code Editor | *Next.js, React, Prisma, TailwindCSS, jwt, Docker, MVC*　　⭘
- Designed a **dockerized code execution micro-service** supporting multiple languages with syntax highlighted code editor, isolated execution, and enforced memory/time limits
- Developed a dynamic blog system and content moderation enabling users to create, edit, and delete posts, with integrated commenting functionality for community engagement including flagging/hiding posts
- Utilized **Prisma** for efficient for database management for user profiles, code templates, blogs, and reports

iSONG | *Java, Swing GUI, Spotify API, SOLID Design Principles, Clean Architecture*　　⭘
- Engineered a **Java** music application with **Spotify API** integration, enabling responsive song searches in response to prompts, in collaboration with **3 team members** using **OOP** and **Clean Architecture**.
- Developed essential use cases, applying the **listener design pattern** on the profile page, solving a complex challenge.
- Performed application testing with over **90% coverage of test cases using JUnit and Mockito.**

Technical Skills

Languages: Java, Python, TypeScript, JavaScript, SQL, C, Bash
Frameworks/Libraries: React.js, Next.js, Django, JUnit, Node.js, Pandas, NumPy, LlamaIndex
Technologies/Others: PostgreSQL, Azure DevOps, Git, RESTful APIs, Unix/Linux, Postman