Darsh Shah

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Education

University of Waterloo   **Sep. 2023 – Present**
Bachelor of Software Engineering, Co-op   *Waterloo, Ontario*
- Guo Family Engineering Scholarship and President's Scholarship of Distinction
- Relevant Coursework: Intro to Data Structures and Algorithms, Data Abstraction and Object-Oriented Programming, Methods of Software Engineering, Linear Algebra, Linear/Digital Circuits

Skills

Languages: Python, C, C#, C++, JavaScript, SQL, HTML/CSS
Frameworks/Libraries: React.js, Angular, ASP.NET, Node.js, Flask, OpenCV, NumPy, TensorFlow, Pandas, Bootstrap
Tools: Git, Bash, Docker, Azure, GraphQL, MySQL, Figma, Jupyter Notebook, Firebase, Arduino, Linux

Experience

Software Developer Intern   **May. 2024 – Aug. 2024**
ComputerTalk Technology ↗   *Thornhill, Ontario*
- Migrated **client reporting software** into a **managerial platform** using Angular and C#, streamlining data accessibility
- Improved **loading speed by 10%** with a Journal page transition to Angular, promoting component-based architecture
- Created **MVP and documentation** for a new Reports page with Telerik UI, following the SDLC using Azure DevOps

Software Engineer Intern   **May 2022 – Aug. 2022**
Nu Vision Metals ↗   *Scarborough, Ontario*
- Boosted **website traffic by 27%** through a site revamp, incorporating UI/UX research and industry metrics analysis
- Reduced **deployment time by over 50%** via a GitHub Pages CI/CD pipeline for streamlined version control
- Achieved a **24% reduction in bounce rate** through A/B tested cross-platform wireframes with Figma and CSS

Projects

Vibe ↗ | *Python, React, NumPy, Transformers, Whisper API, Spotify Web API*
- Integrated the **Whisper API** and **Twitter RoBERTa** sentiment model for an audio-based mood detection platform
- Engineered a **data pipeline** with HTTP methods to transmit analysis results for scalable client-server communication
- Launched a **React app** that recommends mood-personalized playlists from over **100M songs** via the Spotify Web API

DetectGPT ↗ | *Python, HTML/CSS, Flask, PyTorch, spaCy, GPT-2*
- Developed a **LLM-content detector**, incorporating **NLP techniques** to detect AI-generated text with **87% accuracy**
- Calculated sentence perplexity by comparing **GPT-2** next-word predictions with inputted text to quantify text variability
- Evaluated burstiness by calculating perplexity deviation across sentences, **reducing detection error by 21%**
- Deployed **Flask server** to handle requests between the web UI and Python-based backend, ensuring a seamless UX

J.P. Morgan Trader Dashboard ↗ | *Python, TypeScript, HTML/CSS, Perspective*
- Identified stock misvaluations using **historically correlated stocks** in the J.P. Morgan Software Engineering Experience
- Generated clear and visually appealing live graphs using the **Perspective library** to display data for traders to monitor
- Developed a **data processing pipeline** using Python and Pandas, resulting in efficient analysis of large financial datasets

Leadership

President   **June 2022 – June 2023**
WolfHacks   *Brampton, Ontario*
- Led **25+ members** in a cross-functional team to organize the largest hackathon in the Peel District School Board
- Secured **over $50,000** in funding from Rogers and the CSA by crafting and presenting compelling sponsorship proposals
- Coordinated prizes, merchandise, and venues for **800+ participants**, growing interest in the SciTech program **12% YoY**