Colin De Vlieghere

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🔗 github.com/Cubevoid   🌐 Portfolio: https://colindv.xyz

*Software engineer seeking full-time in-person or remote opportunities. Proficient in **machine learning** and popular programming languages, and eager to learn more. Strong communication and teamwork skills. Takes pride and ownership in his work with a detail-oriented mindset.*

EDUCATION

UNIVERSITY OF TORONTO   **Toronto, ON, Canada**
BSc - Computer Science Specialist w/ Focus in AI; Mathematics Minor   *Graduation: June 2024*
Awards: UofT Scholar, Dean's List Scholar, Innis College Exceptional Achievement   *3.9 GPA*

WORK EXPERIENCE

QUALCOMM   **Markham, ON, Canada**
Machine Learning Engineering Intern   *May 2022 – May 2023*
- Develop high performance ML **model compiler** for custom **deep learning hardware** accelerator
- Develop **model translation** layer to convert between custom representations
- Create smart **Arduino**-based ML weather station with no moving parts
- Coordinate software projects across teams and perform knowledge share presentations

SMARTECHS   **Conshohocken, PA, US**
Augmented Reality Intern   *Summers 2019, 2020, 2021*
- Create document-to-JSON parser
- Coordinate developers, write user stories, create Figma designs
- Spearhead ISO27001 policy draft and define privacy and security policies
- Produce videos and perform tech demos for clients

PROJECTS

- [Feeling Hungry](): web app using an **NLP** model to recommend healthy alternatives to cravings. Uses embeddings from **spaCy**, with custom vector database using **FAISS** for speed. Uses DuckDuckGo and Google Maps APIs to quickly return rich search results. Categorizes food options with similar vector embeddings using nutrition facts like fat and sodium levels.
- [SuperMarAI](): AI trained using NEAT, a genetic algorithm, to play Super Mario. Emulates the game using gym; similar to **reinforcement learning**.
- Contributions to various **open-source** projects such as [pkg2appimage](), a tool for generating Linux versions of apps, or GNOME (Linux desktop) extension [audio-output-switcher]()
- [Mathler solver](): finds solutions for Mathler, a Wordle-like game. Improves on brute-force by constraining search space

TECHNICAL SKILLS

- Python, C++, C, Java/Kotlin
- PyTorch, Machine Learning models, Agile development, Git
- Docker, Bash, Linux, Cloud Infrastructure, APIs
- Fluent English and French; Some Chinese (Mandarin) and Spanish
- Strong teamwork and communication skills