Colin De Vlieghere

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

Software Engineer | Machine Learning Enthusiast | Seeking Full-Time Opportunities (In-person/Remote)

EDUCATION

UNIVERSITY OF TORONTO   Toronto, ON, Canada
BSc - *Computer Science Specialist w/ Focus in AI*; Mathematics Minor   *Sept 2019 - 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*

- Enhanced high performance **ML model compiler** for custom **deep learning hardware** accelerator, improving inference time and unlocking new customer use cases
- Implemented **model translation** software to convert between custom representations, leading to improved interoperability across different model formats
- Designed and prototyped a smart Arduino-based ML weather station with no moving parts, contributing to cost savings and coverage in weather monitoring systems
- Orchestrated software projects across teams and hosted knowledge sharing sessions to boost team productivity and promote **collaborative problem-solving**

SMARTECHS   Conshohocken, PA, US
Augmented Reality Intern   *Summers 2019, 2020, 2021*

- Created document-to-JSON parser to increase data processing efficiency
- Coordinated developers across teams, drafted user stories, created Figma designs to improve UX
- Spearheaded ISO27001 policy draft and defined robust privacy and security policies

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: **Reinforcement learning AI** trained using the NEAT genetic algorithm to play Super Mario. Emulates the game using gym in Python.

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

SKILLS

Python, C++, C, Java/Kotlin

PyTorch, Machine Learning models, Agile development, Git

Docker, Bash, Linux, Cloud Infrastructure (AWS/GCP), APIs, PostgreSQL

Fluent **English** and **French**; Some **Chinese** (Mandarin) and Spanish

Strong teamwork and communication skills