

MARCELO PONCE ARDON (they/them)

TORONTO, ON ◇ marcelo.ponce@alumni.utoronto.ca ◇ github.com ◇ (587) · 718 · 6272

HIGHLIGHT OF QUALIFICATIONS

- **Full-stack developer** specializing in TypeScript/Next.js and Python, demonstrated by building Wikigraph3D—an interactive 3D Wikipedia visualization serving 500+ nodes with optimized rendering performance.
- **Experienced in machine learning pipelines**, shown by developing a 5-step PyTorch model using HuggingFace Transformers for automated Brazilian Jiu-Jitsu match scoring.
- **Proficient in scalable backend architecture**, evidenced by co-leading a team of 7 to build a RESTful API with GoLang, PostgreSQL, Redis caching, and CI/CD automation.
- **Passionate about knowledge transfer and security**, as shown by running a competitive CTF event teaching 20+ students about vulnerabilities, exploitation techniques, and Kali Linux tools.
- **Practical IT experience** implementing security solutions including organization-wide Bitwarden 2FA deployment and anti-virus rollout across 14+ devices.

EDUCATION

Honours Bachelor of Science (HBS) in Computer Science ◇ University of Toronto

June 2025

Relevant Coursework: Software Engineering, Web Programming, Scalable Computing, Parallel Programming, Computer Security, Neural Networks & Deep Learning, Algorithm Design & Complexity

PROJECTS

Wikigraph3D ◇ Next.js, TypeScript, Tailwind CSS, react-force-graph-3d

Aug. 2025 – Present

- Built interactive 3D Wikipedia graph visualization enabling spatial exploration of 500+ interconnected article-nodes.
- Configured automated code quality tooling (TypeScript strict mode, ESLint, Prettier, Husky pre-commit hooks).
- Optimized rendering performance by caching sprites, preventing unnecessary re-renders during node interactions.

jiu-jitsu-autoscoring ◇ Python, Jupyter, PyTorch, Transformers

Jan. 2025 – Present

- Developing 5-step ML pipeline to automatically score Brazilian Jiu-Jitsu match videos using computer vision.
- Fine-tuning pre-trained PyTorch models via HuggingFace Transformers for person detection, pose estimation, and classification on annotated BJJ dataset.

CTF427 ◇ VirtualBox, Docker, CTFd, Kali Linux

Jan. 2025 – March 2025

- Ran competitive CTF event teaching 20+ students about security vulnerabilities (SQLi, cryptography, binary exploitation, forensics).
- Built vulnerable web applications and hosted via Docker containers on VirtualBox VM with CTFd scoreboard platform.

Opalescence ◇ GoLang, PostgreSQL, Redis, OAuth2.0

Jan. 2024 – April 2024

- Co-led team of 7 building web-based note-taking application, overseeing backend architecture and development.
- Implemented RESTful API with GoLang (GinGonic), PostgreSQL (GORM), Redis caching, GitHub Actions CI/CD, and Google OAuth2.0 authentication.

EXPERIENCE

IT Administrative Support ◇ CANVAS Programs

Sept. 2025 – Present

- Deployed organization-wide security solutions: Bitwarden password manager with 2FA and anti-virus across 14+ devices.
- Managed user account lifecycle, access controls, and daily troubleshooting for hardware/software issues.

Barista ◇ Claudia's Coffee

March 2023 – Present

- Prepared 45+ specialty drinks per hour in fast-paced environment; independently managed opening/closing operations.

SKILLS

Languages: Python, TypeScript/JavaScript, GoLang, C/C++, Java, C#, SQL, Bash, HTML/CSS

Frameworks & Libraries: Next.js, React, Node.js, PyTorch, scikit-learn, Pandas, NumPy

Tools & Technologies: Docker, Git, GitHub Actions, Jupyter, LaTeX

Databases: PostgreSQL, MySQL, Redis, SQLite, Cassandra

Other: AWS, Linux, Agile/Scrum, Automated Testing

◇ *Fluent: English, Spanish*