Jason Cameron

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EXPERIENCES

Research Assistant
Lassonde School of Engineering, York University

Jun. 2024 - Present
North York, ON

- Research Assistant to Dr. Alvine Boaye Belle | Analyzed AI/ML fairness, reducing model bias **15%**. Researched and proposed solutions to access barriers in tech, boosting underrepresented participation in program by **13%**.

Project Manager
Project Metropolis

Sep. 2022 - Present
Toronto, ON

- Optimized Docker build processes reducing average build time from **140s** to **80s** by caching reused layers
- Automated API documentation generation conforming to OpenAPI 3.1 standards, saving **5** hours monthly per developer
- Streamlined deployment via centralized bash scripts, improving system agility and reducing average downtime by **12%**
- Established REST API filters, eliminating wasted API calls by **~30%** and decreasing server load by **3%** during peak usage
- Designed and implemented polymorphic comments, likes, view counts, and saves, increasing user engagement by **300%**

Computer Science Tutor

Dec. 2023 - Present

- Instructed students aged 7-16 in Scratch, Python and basic web development through one-on-one and *Toronto, ON* group lessons. Utilized a blend of interactive exercises and project-based learning to foster understanding

PROJECTS
jasoncameron.dev/#/projects

RedditVideoMakerBot | *Python, Reddit, FFmpeg, AWS Polly, Playwright, Web Scraping* — ⓖ   May 2022 - Present
Automated tool for transforming Reddit posts into videos using code, streamlining traditional editing workflows

- Created a simplified configuration GUI, growing the bot to **6,500+** stars on GitHub and **250,000+** downloads
- Enhanced bot's Text-to-Speech (TTS) functionality by reverse engineering the TikTok TTS API, resulting in a **30%** reduction in processing time and a **25%** increase in speech clarity
- Ensured reliable operation of the bot across **10,000+** machines and all major operating systems despite API changes, rate limiting, and copyright issues

Abacus | *Golang, Gin, Valkey, Docker, Jsoniter, SSE, JSONP, Linux System Administration* — ⓖ   Apr. 2024 - Present
High-performing and lightweight API simplifying numeric tracking and analytics, eliminating custom backend infrastructure

- Scaled the site up to **1.5 million+** requests weekly while maintaining a **100% uptime** and **46.0ms** median response time
- Reduced infrastructure costs by **35%** and increased speeds by **22%** utilizing pipelining and optimizing Docker networks

Foodle | *Typescript, Svelte, CSS, Python, Flask, Cloudflare, Google Analytics* — ⓖ   Aug. 2022 - Present
A food-themed twist of Wordle with an additional set of modes and features

- Developed and deployed a high-performance Wordle-inspired game using Svelte, Cloudflare, and GitHub Pages. Grew it to **680,000+** unique visitors and **5,700,000+** page views via user-driven improvements

mCTF | *Python, Django, K8s, Docker, Valkey, PostgreSQL, Nebula, NixOS* — ⓖ   Jan. 2024 - Present
A Reusable Jeopardy-style CTF platform written using Django and Kubernetes

- Identified and rewrote critical SQL query reducing time to execute by over **80x** to **97ms** by leveraging precalculated database tables, leading to an over **50x** reduction in avg request time and an overall **60%** increase in user satisfaction

Scavenger Hunt | *Python, Django, CSS, JS, PKCE2, OAuth 2.0* — ⓖ   Nov 2022-Present

- Developed a Django-based scavenger hunt platform with anti-cheat/teaming systems and support for multiple concurrent hunts to ensure fair and strategic gameplay

FORMAL EDUCATION

William Lyon Mackenzie Collegiate Institute - Toronto, Ontario

- **Extracurriculars:** Student Council, School Website (Project Manager), Competitive Programming Club (*System Administrator*), Engineering Club (*Tech Lead*), School Newspaper (*Photographer*), A/V Team (*Crew Member / Club Liaison*)

SKILLS

Languages: Python, Golang, Java, JavaScript/Typescript, Bash, Fish, Nim, HTML, CSS/SCSS
DevOps Tools: Linux, Caddy, Nginx, traefik, Docker (Swarm, Compose, BuildX), Cloudflare, WireGuard, GitHub Actions
Tools/Frameworks: Django, FastAPI, Flask, React, Svelte, Astro, Gin, Celery, Postman, Tailscale, Git
Databases: PostgreSQL, SQLite, RocksDB, Valkey, Redis, MongoDB
Productivity and Design Tools: Miro, Notion, Microsoft Suite, Canva, Photoshop, LaTeX