FINLEY HARRISON

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EDUCATION

University of Waterloo **2023 - Present**
Bachelor's of Computer Science Honours Co-op Program GPA: **3.8**

TECHNICAL SKILLS

Languages C, C++, C#, Java, Python, JavaScript, TypeScript, PHP, HTML/CSS, SQL, Bash, Racket
Frameworks/Tools React, Tailwind CSS, Bootstrap, jQuery, Redux, Git, MySQL, PostgreSQL, Azure, Node.js, Flask, ASP.NET, Three.js, Appwrite, Adobe Suite, Jira, Confluence, Blender,

EXPERIENCE

BCS Automation ltd. **May 2025 - Aug 2025**
Full-Stack Developer *Belleville, ON*
- Had a lead role in designing and implementing an analytics dashboard using **React** and **C#, ASP .NET**, enabling live monitoring of 5+ Coast Guard ships and processing over **50K+** telemetry points minimizing data loss.
- Leveraged Azure EventHub and ADX to process **2GB+** of telemetry data per hour, enabling real-time analytics
- Designed and trained ML models for **real-time anomaly detection** and **forecasting**, achieving over **90%** accuracy
- Streamlined internal documents with a chatbot (Ollama, MCP, RAG), reducing information retrieval time by **60%**
- Optimized database queries and backend services, cutting API response times from **3.2s to 120ms**

University of Waterloo IST **May 2024 - Aug 2024**
Service Desk Specialist *Waterloo, ON*
- Engineered an automated script to clear and configure new Windows accounts, saving the team **3+ hours weekly**.
- Effectively managed **400+ weekly** technical support requests from students and staff via phone and Jira.
- Leveraged communication skills to secure the term's **highest client reviews**, consistently exceeding expectations.
- Redesigned the IST's student rental system using **Jira**, enhancing user experience and boosting efficiency.

Nettwerk Music Group **2021 - 2024**
3D Developer *Waterloo, ON*
- Developed **50+ captivating 3D animations and websites** for artists using Three.js and 3d modeling in Blender.
- Elevated visual appeal and narrative depth through meticulously crafted animations, seen on Spotify and Youtube.
- Designed websites and visuals that led to songs being added to playlists with over **5 million saves**.

PROJECTS

ⓞ **JukeBox** || *React, Tailwind CSS, TypeScript, Appwrite, Spotify API*
- Designed and developed a social platform for music reviews, enabling users to share, rate, and discover music.
- Integrated the **Spotify API** for seamless music discovery and **Appwrite** for scalable database + authentication.
- Implemented responsive, mobile-first UI with **Tailwind CSS**, achieving $< $ **200ms** interaction latency in testing.
- Designing and implementing dynamic review feeds, and personalized recommendation algorithms.

ⓞ **Ray Tracer** || *C++*
- Designed and built a high-performance C++ ray tracer, showcasing advanced object-oriented programming.
- Implemented efficient algorithms for ray-sphere and ray-plane intersections, with realistic reflection, refraction, and texture mapping features.
- Optimized the rendering pipeline with bounding volume hierarchies, achieving an 8x speedup in render time.

ⓞ **Fluid Dynamics** || *JavaScript, HTML/CSS*
- Developed a real-time Eulerian fluid simulation using JavaScript, modeling smoke advection and fluid flow.
- Implemented numerical solvers for pressure correction and advection to produce accurate, stable simulations.