OSCAR E. SANDFORD

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EDUCATION

University of Victoria   Victoria, British Columbia, Canada
Bachelor of Science with Distinction, Major Computer Science   Sep 2018 - Sep 2022
GPA: 7.05/9.0 (cumulative), 7.93/9.0 (graduating)

WORK EXPERIENCE

Sky Pilot Enterprises, Inc.   Squamish, British Columbia, Canada
Information Technology Specialist   Dec 2015 - May 2020

- Handled online B2B operations between outdoor businesses, ensuring orders placed timely and correctly
- Supervised product demos at climbing gyms, helping end consumers learn and test product samples

SKILLS

Languages	Python, Rust, JavaScript, TypeScript, SQL, Bash, C++
Libraries	NumPy, Matplotlib, React, Express
Tools	Git, Linux, Docker, Vim, VSCode, Jupyter, LaTeX, MS Office Suite
Soft Skills	Quick Learning, Organization, Team Communication, Task Delegation, Technical Writing

ACADEMIC PROJECTS

Multi-Armed Bandits for Optimizing New Peers in Peer-to-Peer Networks   *link*
Using reinforcement learning to optimize download speed in peer-to-peer networks.

Chiptune Extension and Generation Using Markov Chains   *link*
An implementation of chiptune track extension and generation techniques using Markov inference.

A Survey on the Importance of QoS Parameters Across Networking Domains   *link*
Evaluating QoS priorities in different networking domains.

Programming Language Diversity and Software Growth: A Case Study   *link*
On how software evolution in React Native is affected by programming language diversity.

SIDE PROJECTS

Appletree *Rust, TypeScript, Node.js, SQL, Docker*   *link*
A TypeScript Discord bot application that interfaces with a custom REST server written in Rust.

Sky Pilot *HTML, CSS, TypeScript, React, Express, PostgreSQL, Docker*   *link*
A web application for my family's business.

Manget *Rust*   *link*
A CLI tool for binding MangaDex pages into PDFs for offline reading.

Genshinpedia *TypeScript, React, Bootstrap CSS*   *link*
A web user interface for accessing the genshin.dev API.

Ichor *C++, SDL2, CMake*   *link*
A simple sketching application to satisfy the lack of a built-in MS Paint equivalent on Pop OS.

Infinity Drift *C#, Unity*   *link*
An single-player racing game inspired by Initial D.

NOTABLE COURSEWORK

CSC 421 *Introduction to Artificial Intelligence*	100% (A+)
CSC 485D *Topics in Systems: Reinforcement Learning*	87% (A)
CSC 485B *Topics in Systems: Data Science and Software Engineering*	90% (A+)
CSC 475 *Music Retrieval Techniques*	95% (A+)
CSC 466 *Overlay and Peer-to-Peer Networking*	86% (A)
CSC 361 *Computer Communications and Networks*	90% (A+)
CSC 360 *Operating Systems*	85% (A)
SENG 360 *Security Engineering*	90% (A+)
ENGR 240 *Technical Writing*	89% (A)

PUBLICATIONS

Pawn for Pawn? *Polar Expressions Publishing*   Jan 2015
Short fiction story published as part of a collection of exceptional work done by ninth graders across Canada.

Awards

UVic Excellence Scholarship   University of Victoria
Entry scholarship upgraded to excellence scholarship.   Jul 2018
Information Technology Award   Henry Verbeek
Presented in grade 12 at Howe Sound Secondary.   Jun 2018