David Huculak

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Languages: Rust | Typescript | C++ | Java | Python. **Technologies**: WebGPU | Unity | AWS | Terraform | React

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EDUCATION

CONCORDIA UNIVERSITY

Bachelor of Computer Science   *May 2020*

PROFESSIONAL EXPERIENCE

ENGINE PROGRAMMER

Ubisoft Montréal   *2022-present*
- Worked on a branch of Ubisoft's in-house C++ engine, Snowdrop, for an unannounced game.
- Responsibilities included downstream code integrations, parallel systems, performance optimization, world streaming, node graph scripting subsystem

SOFTWARE DEVELOPER

CHK PLZ Inc. (acquired by Sunday Inc. in 2021)   *2020 – 2022*
- Worked fullstack on a small team, developing an web application with multiple frontends to provide features for restaurants, bars, and hotels such as QR code payments, online food ordering and other services.

SOFTWARE DEVELOPER

Vehicle Mind Inc.   *2018, 2019*
- Worked on the backend of an AWS IoT solution written in Javascript and Java.

SOLUTIONS ARCHITECT

Classmethod Canada Inc.   *2018, 2019*
- Worked on web-based prototype projects including an IoT feedback terminal and a tweet sentiment analysis bot

SOFTWARE DEVELOPER INTERN

Nuance Communications Canada Inc.   *2016, 2017*

PROJECTS

IKARI [(3D GAME ENGINE)](#)   *2022-Present*
- Written in scratch in Rust, fully cross platform engine for making 3D games. Cross-platform (incl. web), high performance, parallel, graphics features include PBR, Cascaded Soft Shadows, Mesh skinning, etc.

SHELL SMASH [(3D VIDEO GAME)](#)   *2023*
- Cute crab-themed bullet hell / puzzle game built with the Rust Bevy Engine for a game jam with 3 friends.

SHAPE OF LIGHT X [(APPLICATION FRAMEWORK)](#)   *2022*
- Helps map the positions of your christmas lights and provides a framework for programming 3D-aware animations that run on your tree

PANORAMIC IMAGE STITCHING [(CLI APPLICATION)](#)   *2021*
- Takes a set of images and projects them into a common coordinate frame, blending the overlapping parts. Rewrote this school project in Rust, yielding a 15x runtime speedup.

TRAVELLING SALESMAN PROBLEM SOLVER [(JAVA PROGRAM)](#)   *2014*
- Provides visual representation of the Ant Colony Optimization heuristic algorithm

SKILLS & AWARDS

AWS CERTIFICATION: Developer Associate 2019

AWARDS: Top Ten Projects @ HackMIT 2015, Computer Science Award @ High School Science Fair 2011