

# David Huculak

Montréal, QC | [davidhuculak.com](http://davidhuculak.com) | [github.com/Davidster](https://github.com/Davidster) | [davidhuculak.itch.io](https://davidhuculak.itch.io) | davidhuculak5@gmail.com

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

## 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 a 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