

David Huculak

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Languages: Javascript | Rust | Python | C++ | Java. **Technologies:** WebGPU | Unity | AWS | Terraform | Linux

EDUCATION

CONCORDIA UNIVERSITY

Bachelor of Computer Science

May 2020

- **Relevant coursework:** Computer Graphics (OpenGL), Computer Vision (OpenCV), Game Development (Unity), Data Structures & Algorithms, Operating Systems, System Hardware, CPU Design

PROFESSIONAL EXPERIENCE

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 prototype projects including an IoT feedback terminal and a tweet sentiment analysis bot

SOFTWARE DEVELOPER INTERN

Nuance Communications Canada Inc.

2016, 2017

- Learned and used web tech such as CSS, CouchDB, Tomcat, Node.js, GWT, AngularJS, Git

PROJECTS

WEBGPU SANDBOX ([3D VIDEO GAME](#))

2022

- Simple first-person shooter game with a custom engine I'm making from scratch. Features include PBR materials, IBL, shadows, bloom, skeletal animations, anti-aliasing, glTF asset import, Linux, Windows & MacOS support

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.

SUPER SHOPPER CTR ([3D VIDEO GAME](#))

2019

- Speed shopping game built with Unity for a class project with 5 other team members.

BLENDER RAMP CREATOR ([BLENDER PLUGIN](#))

2018

- Blender plugin for dynamically creating, shaping and resizing 3D models of skateboard ramps

TRAVELLING SALESMAN PROBLEM SOLVER ([JAVA PROGRAM](#))

2014

- Provides visual representation of the Ant Colony Optimization heuristic algorithm

SKILLS & AWARDS

AWS CERTIFICATION: Developer Associate

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

LANGUAGES: Bilingual English and French