Aryah Kannan

aryah@dal.ca | linkedin.com/in/aryah | github.com/shamone03 | aryah.dev

EDUCATION

Dalhousie University	Sep. 2020 – May 2025
Bachelor of Computer Science, Dean's List	*GPA – 3.92/4.30*

EXPERIENCE

Student Software Developer | *C++, Conan, wxWidgets, OpenGL, Rust, Tokio* — Apr. 2024 – Present
Cartenav Solutions / PAL Aerospace — *Halifax, NS*
- Worked on a performance critical C++ desktop application to aid in Intelligence and Reconnaissance
- Created a Rust search library used to full text search 1000s of records of live sensor data in milliseconds
- Designed and implemented a novel feature to allow better target prediction using isochrones
- Refactored and improved codebase using modern C++ patterns to bring feature parity with other products
- Created a data feed service in asynchronous Rust to stress test and benchmark a high throughput HTTP server

Full Stack Developer | *React.js, Node.js, MySQL, Apache, Material UI* — Jun. 2023 – Present
Dalhousie University — *Halifax, NS*
- Created an intuitive website to manage course loads and teaching assignments for professors
- Used React with Material UI to create drag-and-drop UI
- JWT tokens used to assign permissions and feature configurations based on level of access
- Integrated with the university's CAS as an extra layer of security
- Greatly streamlined the course assignment and workload management for the computer science faculty

PROJECTS

Graphics Engine | *C++, GLSL, OpenGL, Conan, CMake* — Repository
- OpenGL application that can render primitive 3D objects
- Implemented abstraction layers to simplify OpenGL function calls
- Indexed vertex buffers for improved performance
- Can render and composite multiple images

Interactive Public Display Game | *Unity, C#, Blender* — Repository
- An interactive game hosted on a large touch screen display to teach people about EDIA
- Custom maze generation algorithm to create a hexagonal grid
- Implemented a Finite State Machine pattern and used Scriptable Objects to allow high scalability and modularity
- Worked in a team to create documentation for improved maintainability

EXTRA CURRICULAR

Global Game Jam 2024 — Submission
- Date night at Bernie's, a comedic dating simulator game in Unreal Engine 5
- Used blueprints to dynamically manipulate audio to uniquely communicate the game's state
- Won the most creative award at the Halifax game jam site

Brackey's Game Jam 2023.2 — Submission
- Hangry Bird, a fun diving bird game made in Unreal Engine 5
- Physics based flying movement and water buoyancy mechanics
- Completed in 7 days with all custom made assets

Ludum-Dare Game Jam 53 — Submission
- CaravAmbulance, a chaotic action game centered around being an emergency response driver made in Unity
- Made custom assets using Blender
- Realistic Car physics using Unity's PhysX wheel colliders