

Adharsh Shokkalingam

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Education

The University of Alberta

Bachelor of Science in Computer Science, Minor Mathematics

Expected Graduation: May 2027

Technical Skills: Python, Java, C/C++, SPSS, RISC-V Assembly (RV32I), HTML, CSS

Developer Tools: Git, VS Code, FireBase, UML, Android Studio, SDL2, SQL, MongoDB

Relevant Coursework: Algorithms, Software Engineering, Computer Architecture, Operating Systems, Machine Learning, Databases.

Work Experience

- **Sales Associate | Calvin Klein** *July 2022 – November 2023*
 - Work at cash to add-on, handle purchases, returns and exchanges while informing about fundraisers and signing up customers for our loyalty program at **95% rate**
 - Achieving push/incentive goals consistently converting customers with a **30% conversion rate** in a mall retail environment while hitting **3+ UPT** (Units per Transaction) and **\$70 ADS** (Average Dollar Sale)
 - Listen to customers and respond with useful and appropriate recommendations to ensure their complete satisfaction.
 - Assist in the setup and breakdown of equipment and facilities for various sports activities, events, and programs. Enforce facility rules and regulation to ensure the safety of patrons
- **Sports Facility Attendant | Edmonton Scottish Soccer Dome** *June 2023 - Current*
 - Assist in the setup and breakdown of equipment and facilities for various sports activities, events, and programs. Enforce facility rules and regulation to ensure the safety of patrons
 - Perform routine inspections of equipment and facilities to identify and address any safety hazards or maintenance issues promptly.
 - Maintain cleanliness and organization of the facility, including locker rooms, Dome, and common areas, to uphold sanitation standards and enhance the overall atmosphere

Projects

- **3D-Engine CPU Rasterizer - C, SDL2** *June 2025 - August 2025*
 - Engineered a fully interactive **3D engine** in **C**, leveraging **SDL2** for graphics abstraction and input handling, with backface culling, near plane clipping, dynamic camera transformation, and basic lighting.
 - Designed multiple **real-time rendering modes (wireframe, vertex-highlighted, solid-fill, textured)** with keyboard-driven mode switching and **6 degrees of camera freedom**.
 - Architected the project into **modular components (lighting, geometry, mesh, culling, camera, etc)**, **enabling extensibility and low level control over the render pipeline**.
- **Sulfur - Events Lottery Android App - Java, Android Studio, FireBase** *Sept 2025- Dec 2025*
 - Developed a full stack android application with **6 group members** using **Java, android studio, Firebase** for managing and tracking event/user data.
 - Implemented **QR Code** generation and scanning features including the storing and extraction of embedded **geolocation** data to display and update event/users location.
 - Collaborated in an Agile environment with **Git**, participated in code reviews, and improved/refined application features.
 - Co-designed the application's **UML (class, sequence/activity, and data model diagrams)** architecture to standardize module boundaries and ensure maintainable code structure.
 - Utilized Firebase Cloud **Firestore** for structured cloud data storage, querying, and **multi-user** data consistency.
 - Built the capacity based lottery workflow (sample **N** entrants after the registration window, notifications, re-sampling on declines) to ensure fair sign-ups.

