

# Sashreek Addanki

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## Education

### University of Alberta

B.Sc Honors in Computing Science

May 2028 (expected)

Edmonton, AB

**Relevant Coursework:** Computer Architecture, Algorithms, Machine Learning, Inferential Statistics

## Experience

### Undergraduate Artificial Intelligence Society

Sept 2025 - Present

Software Engineer (Project Lead)

Edmonton, AB

- Developed and deployed a [scam detection Discord bot](#) using a fine-tuned Hugging Face model optimized for 2GB RAM, automatically identifying and removing malicious messages in real-time with sub-second latency across high-volume student servers
- Engineered the bot's message processing pipeline with Python and Discord.py, implementing efficient batch processing and error handling for reliable 24/7 operation
- Leading [ClubMate AI](#) development with a team of 6, building an open-source automation platform using LangChain, LangGraph, and MCP to reduce administrative overhead through intelligent task scheduling and document management.

### Teaching Assistant - CMPUT 274

Sept 2025 - Dec 2025

University of Alberta

Edmonton, AB

- Mentored 200+ students in Linux, bash, and Python DSA through office hours and code reviews.

## Projects

### [FluxAtlas - Economic Trading Engine](#) | FastAPI, React, PostgreSQL, Python, REST API, Typescript

- Built a full-stack auction simulation platform using FastAPI, React, and PostgreSQL, modelling international resource trading with Vickrey auction mechanisms across 50+ simulated countries.
- Implemented cluster-based batch distribution system processing trades across 50+ countries, achieving market equilibrium through dynamic supply-demand price discovery.
- Led a team of 7 developers in building a turn-based simulation engine with real-time API integration, coordinating development sprints and delivering a functional prototype within a 36-hour hackathon

### [Balloon Popper- Gesture-Controlled Game](#) | Python, MediaPipe, Pygame, OpenCV

- Built an accessible alternative to Xbox Kinect gaming using a laptop webcam and MediaPipe, demonstrating motion-controlled gameplay without expensive specialized sensors
- Engineered a real-time gesture recognition system tracking 21 hand landmarks at 60 FPS, enabling hands-free game controls through peace signs, thumbs-up, and palm gestures
- Designed an arcade game with 6 balloon types and dynamic difficulty scaling, validating the feasibility of gesture-based gaming on consumer hardware

### [LinkedIn Profile Summarizer](#) | Python, LangChain, OpenAI API, Scrapin API

- Developed an automated profile analysis tool using LangChain's PromptTemplate and StrOutputParser to chain together web scraping and LLM processing, generating structured summaries from LinkedIn data
- Implemented an extensible LLM pipeline supporting model-agnostic architecture, enabling seamless switching between OpenAI GPT, LLaMA, and Mistral models through LangChain abstractions

## Technical Skills

**Languages:** Python, C/C++, Javascript, Bash Scripting, Assembly(Risc V), HTML, CSS, Rust, Java, SQL

**Technologies:** Linux, Git/GitHub, Firebase, Cursor, PostgreSQL, Model Context Protocol, Docker, CI/CD

**Frameworks:** PyTorch, LangChain, LangGraph, Flask, FastAPI, Discord.py, Hugging Face Transformers, MediaPipe, NumPy, Pandas, scikit-learn, pytest, ONNX, REST API