

Akshay Mysore

Amysore2@uwo.ca • 647-302-0006 • [GitHub](#) • [LinkedIn](#) • [Website](#)

EDUCATION

Western University - Computer Science

- GPA: 3.81/4.00

EXPERIENCE

Blanc AI - Co-Founder

Aug 2024 - Present

- Co-developed an agentic algorithm using llms which is most suitable for Constuction Automation.
- Received \$125,000 in credits in various companies including Azure, Stripe and more from Microsoft for startups.
- Skilled in managing large scale systems across diverse tech stacks to optimize client operations.
- Selected as Ripple Ventures Fellow W “25, Youngest Western Accelerator Fellow W “25 by Morrissette Institute.

Mustang Capital – Quantitative Analyst

Sept 2024 – Dec 2024

- Identified and capitalized on positive arbitrage opportunities between primary and alternate markets
- Co-led a team to automate betting processes by developing algorithms to identify and execute arbitrage opportunities, increasing efficiency by 40%.

Infin8 – Software Engineer

April 2024 – Aug 2024

- Developed REST APIs to handle ERP business logic, optimizing queries to reduce response times by 35%.
- Implemented Redis caching and built a comprehensive test suite achieving 70% code coverage for backend services

Undergraduate Research Assistant

Jan 2024 – Aug 2024

- Assisted in processing 10,000+ spike-train recordings to study neural activity patterns in rodent brain data.
- Contributed to optimizations in data pipelines to improve signal processing efficiency by 7%.
- Collaborated with researchers to detect neural coding patterns, supporting ongoing neuroscience research.

Rothsen Financial Project - Chief Executive Officer

Sept 2023 – June 2024

- Led a team of 12 students to develop and implement programs tailored for high school students
- Secured \$10,000 in sponsorships and grants from businesses and educational institutions.

PROJECTS

Personal AI (Tess) *OpenAI, Ollama, Swarm, torch, selenium, LM Studio*

- Implemented OpenAI’s TTS model for realistic speech, enabling verbal interaction with the assistant.
- Designed an agentic architecture for Tess, supporting long-term (Pinecone) and short-term memory with inter-agent communication with async tasks through thought agent which runs through past conversations.
- Enabled web search capabilities using Selenium, allowing for real-time data to inform assistant responses.
- Allowed for semi-control over desktop for pulling up files, websites and or other queries

Dynamic Story Generator *OpenAI, Swarm, LM Studio,*

- Designed an AI-driven engine with 50+ characters having persistent memory and interactions.
- Automated 200+ manga panels, In Text, by converting LLM dialogues into structured visual narratives.
- Processed 10,000+ tokens per session to enable real-time plot evolution and world-building

Natural Selection Simulation *TensorFlow, torch*

- Developed a simulation with 8+ clans, using libido and animosity metrics for repopulation and battles.
- Managed 200+ AI agents balancing hunger and thirst for resource-seeking behaviors.
- Observed emergent behaviors after 1 hour of learning, leading to natural groupings around enemies.

Malloc Manager *from scratch*

- Developed a Malloc Manager that allocates 1MB memory blocks, divided into 128 fixed-size blocks.
- Reduced memory fragmentation by 9% through optimized block allocation and reuse.
- Achieved performance improvement, handling 50,000+ allocation/deallocation requests per second.
- Designed for applications requiring low-overhead memory management and frequent small allocations.

Malaria Detection Application *TensorFlow, Flask, Fast API*

- Trained a Malaria detection model on 30,000 images (TFDS), ensuring coverage of diverse cases.
- The model achieves a commendable accuracy of approximately 94.27% in diagnosing malaria.
- Implemented a GUI interface to allow for smooth interaction to test the model.

SKILLS

- Programming Languages: *Python, Java, C, JavaScript, TypeScript, SQL*
- Frameworks & Libraries: *TensorFlow, PyTorch, FastAPI, React, Next.js, Node.js*
- Databases & Cloud: *PostgreSQL, Firebase, MongoDB, MySQL, Pinecone, Azure*
- AI & ML: *OpenAI APIs, LangChain, LlamaIndex, Hugging Face, Computer Vision, Reinforcement Learning*
- Systems & DevOps: *Docker, CI/CD (GitHub Actions), Git*
- Concepts & Methodologies: *Memory Management, System Design, Quantitative Finance, Arbitrage Trading*