

Employment

IRL Lab **University of Alberta** **May 2025 – Aug 2025**

- Collaboration with Aggregate Intellect Inc to develop Overcooked-AI web server for human-AI teaming.
- Agents are trained using multi-agent PPO directly inside the Web Server.
- Responsible for the RL integration, putting the web server on HPC cluster for training, and human-AI teaming pipeline with XAI.
- <https://multistewzz.com/login>

RL Researcher **PCL/University of Alberta** **May 2024 – Aug 2024**

- Collaboration with PCL to develop Reinforcement Learning solutions for modular construction task.
- Developed an environment that models modular construction and trained RL algorithms like DQN and PPO using RayRllib on a HPC cluster.
- Setup caching Github action workflows for python application.

Teaching Assistant **University of Alberta** **Sep 2022 – Dec 2025**

- Courses: Algorithm, Formal system and logic for CS

Education

Edmonton, AB **University of Alberta** **September 2024 – August 2026**

- MSc Computing Sciences. Supervised by Matthew E. Taylor and Adam S. Parker.

Edmonton, AB **University of Alberta** **September 2020 – April 2024**

- B.Sc. Computing Science with Honors GPA: 3.7
- Undergraduate Coursework: Compiler Design; Intermediate machine learning; Operating Systems; Databases; Algorithms; Computer Architecture; Web application and architecture; Software development, parallel and distributed system.

Projects

Gazprea Compiler

- A compiler for the Gazprea language (developed by IBM) written collaboratively with a team of 4 in C++ emitting MLIR-IR code (LLVM-dialect).
- Able to compile advance programs such as Depth-first search, Fibonacci sequence, and 8-Queen's program.
- Built two AST passes for Typechecking and Symbol table management.

Multi-Agent RL in Overcooked

- <https://github.com/TruongGiangPham-1/MARL>
- Testing MARL algorithms on Overcooked-AI.

Robotics in Duckietown

- <https://truonggiangpham-1.github.io/412-projects/>
- PID controlled wheeled robot in a real world.

Technical Skills

- **Language:** C/C++, Python, Java, Assembly(Risc- V, x86, ARM), JavaScript/Typescript
- **Framework/libraries:** React, React-native, Django, Pytorch
- **Tools:** Git, Linux, ANTLRv4, MLIR, SQL, Mongo db, Android studio