Thor Callan Truelson

thor.truelson.work@gmail.com | https://truelsont.github.io/personal_website/

EDUCATION

University of Texas at Austin Austin, TX
Masters of Computer Science January 2025 - Present

- **Recent Coursework:** Deep Learning in PyTorch

Carnegie Mellon University Pittsburgh, PA
Bachelors of Artificial Intelligence August 2020 - May 2024

- **Cumulative GPA:** 3.64/4.00
- **Recent Coursework:** Deep Learning Systems, Distributed Systems, Search Engines
- **Dean's List High Honors 2022, University Honors**

EXPERIENCE

Lockheed Martin Skunkworks, *Software Engineer* June 2024 - Present

- Developed and Demonstrated Lockheed Martin's 5G.MIL VOIP architecture to customers.
- Designed and Integrated architecture for BLOS enabled networking systems on the 5th gen Crewed-Uncrewed Teaming program. Collaborated across multiple teams and companies for the program.
- Led IRAD effort for AIML approaches to enhance performance of FANET networks.

Bohemia Interactive Simulations, *Software Engineer Intern* May 2023 - August 2023

- Developed upgrades to VBS4's S3 MinIO file service backend. Forked and contributed to AWS's C++ S3 SDK to demonstrate 86% faster HTTPS file upload speed.

National Financial Partners, *Software Engineer Intern* May 2023 - August 2023

- Developed web scraper tool for creating automated summaries of player injuries using natural language processing. Application was capable of analyzing and summarizing 100s of player injury reports in minutes.
- Updated World Baseball Classic Website, deployed on Heroku using Ruby on Rails.

PROJECTS

HANSA, *Market Simulation Platform*

- Working on a C++ based market simulation platform to test trading strategies on multi agent markets in compute constrained environments.

QryEval*, Search Engine*

- Wrote a python based search engine built on top of Apache's Lucerne. The engine was modular and was configurable with Boolean Match, BM25 and various machine learning reranking models.

NEDL*, Deep Learning Library*

- Implemented a lightweight Machine and Deep Learning Library inspired by PyTorch
- Wide ranging concepts were applied from CUDA backend implementation to automatic differentiation for operators. Concluded with fourier transform support, focused on acceleration of Convolution Layers

LEADERSHIP

Carnegie Mellon University Varsity Football Pittsburgh, PA
Defensive End August 2020 - December 2024

- Committed 30+ hours every week for practice, games, lifting, and film
- Multiyear All Conference 2nd Team and All-Academic Team

Alpha Sigma Phi Fraternity Pittsburgh, PA
Vice President of Philanthropy and Service May 2022 - May 2023
Alpha Gamma Chapter Member September 2020 - Present

- Organized thousands of dollars worth of donations through philanthropic events and fundraising

TECHNICAL SKILLS AND INTERESTS

Major Language Experience: C/C++, Python, Java
Applications: Unix (RHEL and Ubuntu), Git, Docker, Cameo
Other: Native English Speaker and U.S. Citizen, Approved U.S. Gov SCI clearance, Strong mathematical background
Interests: Football, Golf, Markets and Simulation, Hard Science Fiction