

MINH PHAM-DINH

Boston, MA

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EDUCATION

Colby College

Sep. 2022 – May 2026

Bachelor of Arts, Presidential Scholar

Waterville, ME

Major: Computer Science, Mathematic

Relevant Coursework: Data Analysis and Visualization, Microeconomic, Neural Networks, Mathematical Reasoning, Analysis of Algorithm, Graph Theory

GPA: 3.85 (cumulative), 4.0 (major), Dean's List, Presidential Scholar

TECHNICAL SKILLS

Proficient: Java, Python, R, Git, SQL, PostgreSQL, React, NLP, LLMs, Relational Databases, Software Engineering, Data Structures, Algorithms

Familiar: AWS, Azure, Big Data, Neural Networks, Deep Reinforcement Learning, Pytorch, Docker, CI/CD

WORK EXPERIENCE

Davis Institute for Artificial Intelligence

December 2023 – Present

Research Scientist

Waterville, Maine

- Developed an autonomous planning agent with **Azure**, **AWS** and **Pytorch**, resulting in a 200% increase in efficiency and performance over state-of-the-art benchmarks.
- Designed and implemented a large-scale relational graph database pipeline using **PostgreSQL**, **FAISS**, and **Stanza**, significantly enhancing a multi-hop question-answering system's speed and accuracy.
- Presented complex AI research to over 100 students at two undergraduate conferences, effectively communicating technical insights and methodologies.
- Authored a research paper currently under review at a prestigious graduate conference, contributing novel insights.

National Payment Corporation of Vietnam - NAPAS

June 2023 – August 2023

Data Science Intern

Hanoi, Vietnam

- Applied Big Data analytics and **Splunk** to develop interactive dashboards, optimizing real-time data analysis for over 40 client banks, resulting in more accurate and timely decision-making.
- Implemented anomaly detection systems and integrated machine learning techniques within **Splunk**, enhancing predictive capabilities and reducing response times to potential issues.
- Constructed a transaction management system on **Splunk**, improving the efficiency of financial operations and enabling more effective monitoring of transactions.

FIRST Robotics - Team 6520

October 2019 – June 2021

Division Lead & Tech Lead

Hanoi, Vietnam

- Led a team of 30 engineers in the design and manufacture of a 125lbs robot, achieving a 50% increase in pathfinding and shooting accuracy through advanced PID control and Runge-Kutta 4th order methods.
- Awarded Most Valuable Engineer for enhancing trajectory prediction algorithms using Java/C++.
- Mentored new team members, improving their technical skills and fostering a collaborative environment.

PROJECTS

ReasonPlanner | *Knowledge Graphs, AI Planning, Temporal Reasoning, Database Management*

- Research funded by DOD and Microsoft Research. An advanced AI planning system employing temporal knowledge graphs for strategic decision-making in industry settings. Designed and Managed relational databases to ensure efficient data handling and integration. Enhanced system capabilities by incorporating Retrieval-Augmented Generation with large language models to optimize planning accuracy.

PyDreamerV1 | *Python, Pytorch, Deepmind Control, World Modeling, Dynamic Modeling*

- Reproduced and implemented an advanced model-based reinforcement learning framework, Dreamer, with applications in aviation simulations. The project demonstrates significant advancements in sample efficiency and learning capabilities within complex flight environments, including custom simulation setups. Achievements include robust performance in predictive world models and enhanced agent learning through imaginative planning.