# TIMOTHY METZGER

+1(314) 668-0558  $\diamond$  Eureka, MO

tmetzger8@gmail.com \$\displayhttps://timmetzger.github.io/

### **EDUCATION**

M.S. Computer Science, Georgia Institute of Technology Expected May 2024

Specialization: Interactive Intelligence

GPA: 3.80

**B.S. Mechanical Engineering**, Saint Louis University

2019 - 2022

Minor in Engineering Mathematics

GPA: 4.0

Summa Cum Laude

A.S. Engineering Science, Saint Louis Community College

2014 - 2018

GPA: 3.90

### **SKILLS**

Technical Skills Python, C, C++, Java, C#, Rust, SQL, MATLAB, LABVIEW, Autodesk, MS Office

Libraries NumPy, SciPy, Pandas, MatPlotLib, spaCy, Qt, Junit Soft Skills Problem Solving, Communication, Teamwork, Management

Certifications Licensed Engineer in Training - MO

## PROFESSIONAL EXPERIENCE

# Material Discovery Research Assistant

Jan 2023 - May 2023

Georgia Tech

Atlanta, GA

- Conducted research on discovering new materials using AI
- Translated lattice structure information into a computer recognizable structure
- Manipulated graph neural network to find potential materials

Stock Trader Jan 2019 - Present Self Eureka, MO

- Traded stocks and cryptocurrencies, primarily those labeled as "blue chip"
- Developed several trading models using a variety of machine learning techniques
- Maintained a positive PnL throughout

# **Assistant Manager**

Jan 2014 - Jan 2017

Schnucks

Eureka, MO

- Assisted in employee scheduling
- Collaborated with department leads to optimize workflow
- Maintained tight deadlines for product delivery and sales

## PROJECTS

N-Directional A\* Search. Implemented an N-directional A\* search algorithm in Python for finding the optimal path between N locations in the greater Atlanta region. Algorithm solves a problem similar to the Traveling Salesman problem, but in a way that can leverage many of the common A\* search optimizations such as landmarks, shortcuts, and ATL

Andrew File System. Implemented a functional replica of the Andrew File System using C++ with Googles protobuf and gRPC.

Raven's Progressive Matrix Agent. Created an agent capable of solving the visual based Raven's intelligence problems with results exceeding that of humans.