TIMOTHY METZGER

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EDUCATION

M.S. Computer Science, Georgia Institute of Technology   Expected 2024
Specialization: Interactive Intelligence
Relevant Coursework: AI, Game AI, Knowledge-Based AI, ML

B.S. Mechanical Engineering, Saint Louis University   2019 - 2022
Minor in Engineering Mathematics

Summa Cum Laude

A.S. Engineering Science, Saint Louis Community College   2014 - 2018

SKILLS

Technical Skills	Python, C, C++, Java, C#, MATLAB, LABVIEW, Autodesk, MS Office
Soft Skills	Problem Solving, Communication, Teamwork, Management
Certifications	Licensed Engineer in Training - MO

EXPERIENCE

Assistant Manager   Jan 2014 - Jan 2017
Schnucks   *St. Louis, 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.

Q-Learning Stock Trader. Built an AI model for trading stocks using Numpy and Pandas using q-learning with dyna to 'hallucinate' additional training data.

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

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

Animated Algorithm Visualization. Built a algorithm visualizer to investigate the difference between common algorithms in Path-finding, Sorting, Minimum Spanning Trees, and Adversarial Game AI.

Automated Pharmaceutical Drug Sorting. Designed and prototyped a pill sorting machine for use in pharmacies for distributing patient prescriptions. Utilized a pick and place suction mechanism for pill transport and a graphical user interface written with Qt