TIMOTHY METZGER

+1(314) 668-0558 ◇ Eureka, MO
tmetzger8@gmail.com ◇ https://timmetzger.github.io/

EDUCATION

M.S. Computer Science, Georgia Institute of Technology — 2022-2024
Specialization: Interactive Intelligence — GPA: 3.90

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, Rust, SQL, MATLAB, Jira, Git, Agile, MS Office
Libraries	NumPy, SciPy, Pandas, MatPlotLib, PyTorch, VectorCAST, Boost, Junit
Soft Skills	Problem Solving, Communication, Teamwork, Management
Certifications	Licensed Engineer in Training - MO

PROFESSIONAL EXPERIENCE

Real-Time Software Engineer - F22 — May 2024 - Present
Boeing — *St. Louis, MO*

- Conducted research and development of future capabilities for the F22 platform, with a focus on sensors
- Implemented real-time data processing algorithms ensuring high reliability
- Collaborated with cross-functional teams to integrate software with avionics hardware
- Performed system validation and verification through extensive testing procedures.
- Developed and executed simulation scenarios to validate software behavior under various flight conditions
- Created comprehensive documentation to verify complex system behavior preventing defects in production

Algorithmic Stock Trader — Jan 2019 - Present
Personal — *Eureka, MO*

- Developed algorithmic trading strategies utilizing proprietary indicators and machine learning
- Utilized existing machine learning frameworks for rapid development
- 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

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 an Andrew File System using C++ with Googles protobuf and gRPC.