TIMOTHY METZGER

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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

SKILLS

Technical Skills	Python, C++, C#, AWS, Ada, SQL, Jira, Confluence, Git, MATLAB, MS Office
Libraries	NumPy, SciPy, Pandas, MatPlotLib, PyTorch, VectorCast, Boost, Catch2
Soft Skills	Problem Solving, Coordination, Communication, Teamwork, Management
Certifications	Professionally Licensed EIT - MO

PROFESSIONAL EXPERIENCE

Senior Real-Time Software Engineer — July 2025 - Present
LSEG Data & Analytics — *St. Louis, MO*

- Independently developed real-time data transform and normalization software in C++ for financial data
- Created and maintained thorough documentation on software developed to meet customer demands
- Maintained relationships with customers and colleagues in Europe, Asia, and South America
- Deployed software to the cloud using AWS's EC2, SQS, S3, and ElastiCache
- Utilized generative AI for accelerated code development in partnership with Microsoft
- Conducted code reviews using GitLab integrated with SonarQube to ensure maintainable and secure software

Real-Time Software Engineer - F22 — May 2024 - July 2025
Boeing — *St. Louis, MO*

- Implemented new capabilities into legacy systems containing 1M+ lines of code in Ada and C++
- Led in person code reviews using BitBucket to ensure software met customer requirements
- Performed system validation and verification through extensive testing procedures using C#
- Orchestrated the successful delivery of monthly software releases involving multiple companies
- Developed new algorithms utilizing electronic warfare sensors for enemy threat identification
- Administered knowledge transfer sessions to improve team efficiency and effectiveness
- Created comprehensive documentation to verify complex system behavior using Confluence

Algorithmic Stock Trader — Jan 2019 - May 2024
Personal — *Eureka, MO*

- Utilized SciKitLearn and Pytorch to develop machine learning based trading strategies
- Created multiple algorithmic trading strategies combining custom indicators with reinforcement learning

PROJECTS

N-Directional A* Search of Atlanta. Implemented a version of N-Directional A* search as a potential solution to the infamous Traveling Salesman Problem. The algorithm makes use of optimization techniques commonly used in bi-directional search, such as landmarking and shortcuts, to provide an optimal solution connecting N points.