

# 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

<b>Technical Skills</b>	Python, C++, C#, Java, Ada, SQL, Jira, Confluence, Git, MATLAB, MS Office
<b>Libraries</b>	NumPy, SciPy, Pandas, Matplotlib, PyTorch, VectorCast, Boost, Junit
<b>Soft Skills</b>	Problem Solving, Coordination, Communication, Teamwork, Management
<b>Certifications</b>	Professionally Licensed EIT - MO

## PROFESSIONAL EXPERIENCE

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

- Executed system defect burndown, reducing the total number of defects by 200+ in eight months
- Implemented new capabilities into legacy systems containing 1M+ lines of code in Ada and C++
- Performed system validation and verification through extensive testing procedures using C#
- Ensured new code met quality standards and customer requirements through peer review using BitBucket
- Constructed software design documents detailing the code changes needed to implement software behaviors
- Updated legacy tooling to accommodate new system capabilities and improve developer efficiency
- Managed and coordinated test case issue tracking and resolution across multiple agile teams
- Administered knowledge transfer sessions to improve team efficiency and effectiveness
- Collaborated with teams across 3+ companies to integrate software with avionics hardware
- 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

**Assistant Manager** Jan 2014 - Jan 2017  
Schnucks *Eureka, MO*

- Managed employee scheduling and optimized department workflow

## PROJECTS

**N-Directional A\* Search for 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 for bi-directional pathfinding to provide a solution up to 2x faster than the Held-Karp algorithm.

**Andrew File System.** Implemented a functional replica of an Andrew File System using C++ and gRPC.