

Alex Metzger

Dedicated Software Developer with a focus on AI Research and web application development.

 575-805-9738 |  ametzger08@gmail.com |  <https://www.alex-metzger.com> |

 <https://www.github.com/Metameg> |  <https://www.linkedin.com/in/alex-metzger-699802233>

Experience

AI Research Assistant

May 2025 - present

University of North Texas

- Designed and executed **end-to-end ML pipelines** for research projects under the **U.S. Department of Defense**, including data ingestion, preprocessing, model training, and evaluation.
- Conducted large-scale experiments on multi-label classification tasks using transformer-based LLMs, optimizing training through **unsupervised domain adaptation**.
- Implemented and automated data preprocessing workflows using **Python, Pandas, and spaCy**.
- Applied **prompt engineering** to improve model interpretability and performance on downstream tasks.
- Collaborated with cross-functional research teams to design experiments, interpret statistical results, and integrate findings into **research publications**.
- Documented and version-controlled research artifacts using **Git**.

Freelancer

March 2023 - present

The Domain Designers

- Engineered full-stack web applications for small business clients, integrating **React.js** frontends with **Flask** and **Node.js** backends
- Designed and optimized **RESTful APIs** to support dynamic user interactions and real-time data updates
- Developed automated ETL scripts for syncing third-party data sources (e.g., shipping systems) into SQL databases.
- Improved performance and SEO by applying **Lighthouse audits**, reducing average load time to **under 1.2 seconds** and increasing accessibility scores above **95**
- Designed scalable database schemas and **optimized SQL queries** for high-traffic endpoints.
- Collaborated directly with clients to translate business requirements into technical deliverables, providing tailored solutions and maintaining ongoing support.

Unloader / Freezer Orderfiller

February 2019 - present

Walmart

Education

MS Artificial Intelligence

expected to graduate **December 2026**

University of North Texas (GPA - 4.0)

BS Computer Science

graduated **May 2022**

Southern New Hampshire University (GPA - 3.73) (Magna Cum Laude)

Projects

OmniClip

<https://github.com/Metameg/OmniClip>

The Domain Designers

<https://thedomaindesigners.com>

Southwest Candles

<https://southwestcandles.shop>

Accomplishments

1st Author of published IEEE paper at the *Cognitive Machine Intelligence (CogMI) 2025 Conference* (Pittsburgh, PN): “*Dependence Minimization for Multi-Label Classification: An Alternative to Human Labeling*”

3rd Author of published IEEE paper at the *Cognitive Machine Intelligence (CogMI) 2025 Conference* (Pittsburgh, PN): *“Prompts and Thoughts: Can Your Cyber Curriculum Meet the Job Skills”*

Tech Stack

›Python ›Flask ›PyTorch ›Pandas ›Hadoop
›SQL ›Git ›React ›CSS ›HTML