

JOSEPH HAENEL

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EDUCATION

University of Illinois Urbana-Champaign
Master of Computer Science in Data Science
Southern Illinois University Edwardsville
Bachelor of Science in Computer Science

Online – Part Time
Graduating: May 2028
Edwardsville, IL
Graduated: December 2024

- Magna Cum Laude, Honors Student, Provost Scholar

TECHNICAL SKILLS

- Proficient: **Python, SQL**
- Knowledgeable: **Azure, C, C++, DCNN, Docker, Hail, IBM CloudPak, IBM Db2, IBM watsonx, JavaScript, Keras, MCP, PHP, PyTorch, Reinforcement Learning, scikit-learn, Snowflake, TensorFlow, TypeScript**

WORK EXPERIENCE

Data Analyst

Aug 2024 - Present

Dot Foods

Remote

- Architected .chat — full-stack Azure AI platform (Postgres, Redis) — **servicing 500+ employees** across all internal agentic use cases.
- Implemented job-run monitoring with xMatters across **200+ pipelines**.
- Built Driver Fuel Optimizer (RCSP + GenAI) end-to-end: Azure Function App, Snowflake pipeline, APIM API; **est. ~\$1–5M annualized savings**.
- Built Customer Service Agent (GPT + RAG/OCR, DB2 & Snowflake) for real-time rep support; **est. ~\$200k annualized cost avoidance**.
- Implemented MCP server architecture (Snowflake + Azure, dev/prod) for governed agent access to enterprise data.

Data Analytics & Machine Learning Intern

May 2024 – Aug

2024 Dot Foods

Chesterfield, MO

- Developed and deployed a **LightGBM** retention model for entry-level warehouse roles; 83% recall with an 8-week lead on terminations; **est. ~\$1.5–\$13.8M annualized savings**.
- Built Career Coach app using GPT text-embedding-3-large (cosine similarity) + GPT-4o-mini for personalized job matching; currently in deployment.

Undergraduate Research Assistant

July 2023 – Dec

2024 Southern Illinois University Edwardsville

- Conducted a comparative analysis using machine learning and AI for enhanced detection and classification of tomato leaf diseases, improving agricultural diagnostics.
- Implemented **AlexNet, ResNet50, InceptionResNetV2, Random Forest**, and **K-Means** (Keras/TensorFlow) for tomato disease classification.
- Conducted research in the All of Us Research Workbench to identify SNPs associated with ASD Comorbid.

Teaching Assistant

Jan. 2024 – May 2024

Southern Illinois University Edwardsville

- Supported 30+ students across ML and HCI coursework through grading and academic feedback.

VOLUNTEER WORK

Mentor

March 2025

eHacks 2025

St. Louis, MO

- Provided technical support to **40+ participants** across a 3-day hackathon.

Community Relations and Events Coordinator

May 2023 – March 2024

eHacks 2024

St. Louis, MO

- Led community and sponsorship outreach for our event to secure **\$5,000** in sponsorships.

Guest Speaker in Computer Science

May 2023

Mt. Olive CUSD #5

Mt. Olive, IL

- Delivered a presentation on basic computer programming to students in grades 4-8.