

JOSEPH HAENEL

jhaenel@siue.edu | 217-556-6961 | josephhaenel.github.io

EDUCATION

Southern Illinois University Edwardsville
Bachelor of Science in Computer Science

Edwardsville, IL
Graduating: December 2024

- GPA: 3.71, Honors Student, Provost Scholar

TECHNICAL SKILLS

- Proficient: **Python**, C++
- Knowledgeable: PHP, C, SQL, JavaScript, TypeScript, SWI-Prolog, Scheme
- Learning: **AWS**, **Machine Learning**

WORK EXPERIENCE

Undergraduate Research Assistant

July 2023 - Present

Southern Illinois University Edwardsville

- Conducting a comparative analysis using machine learning and AI for enhanced detection and classification of tomato leaf diseases, improving agricultural diagnostics.
- Implemented machine learning models including AlexNet, ResNet50, and InceptionResNetV2 using **Keras** and **TensorFlow**, alongside Random Forest and K-Means algorithms.

Networking IT Intern

June 2023 - Present

Shelby Electric Cooperative / PWR-net / ShelbyFiber

Shelbyville, IL

- As an intern, I supported the fiber-optic network transition, aiding in its planning and implementation. My contribution helped establish a reliable network, aiding in the company's future growth.
- Managed network operations for our fixed wireless broadband company, overseeing 1300+ CPEs (Customer Premises Equipment), which significantly enhanced the reliability of our services.

Teaching Assistant

Jan. 2024 - Present

Southern Illinois University Edwardsville

- Teaching Assistant for **Machine Learning** and Human-Computer Interaction classes.

Computer Science Tutor

Aug. 2023 - Dec. 2023

Southern Illinois University Edwardsville

- Tutored students in the basics of **C++** and their understanding of computing principles.

PROJECTS

Odyssi – Senior Project

January 2024 - Present

Southern Illinois University Edwardsville

St. Louis, MO

- Applying **Agile** methodologies, we're enhancing odyssi.io by strategically adding gamification to boost user engagement and interactivity.

Reddit Thread Scraper

Aug. 2023 - Dec. 2023

Southern Illinois University Edwardsville

- Worked in a team to create 'Reddit-Destroyer', a **Python** project integrating **ChatGPT API** for Reddit thread sentiment analysis. Details at github.com/josephhaenel/Reddit-Destroyer.

Image Format Converter

Nov. 2023

Independent Project

- Developed 'ImageFormatConverter.py', a **Python** tool using **Pillow** to recursively convert image formats in directories, enhancing file management. Details at github.com/josephhaenel/ImageFormatConverter.

VOLUNTEER WORK

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.