

Scott Haakenson

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EDUCATION

Michigan State University, College of Engineering

Bachelor of Science, Computer Science

GPA: 4.0/4.0 - Honors College

East Lansing, Michigan
Expected Graduation: May 2026

PROFESSIONAL EXPERIENCE

Schaeffler Group North America

Prototype Software Development Co-op

Troy, Michigan
August 2024 - Present

Schaeffler Group is a German-based automotive supplier with 120,000 employees worldwide.

- Utilized Swift to produce an iOS app that controls the active suspension in an F150 Lightning
- Trained a Long Short-Term Memory (LSTM) model to predict torque in the steer-by-wire system, integrating edge computing into an embedded system for low-latency feedback calculations

Ford Motor Company

Model E Product Development Intern

Allen Park, Michigan
May 2024 - August 2024

Ford Motor Company, a major American car company, is famous for putting America on wheels. Today, they are pioneers in the electric vehicle space.

- Developed machine learning algorithms to predict internal temperatures of high-voltage battery packs, enhancing accuracy and precision
- Applied Hyperparameter Optimization algorithms to a novel Physics-Informed LSTM model, optimizing performance through precise hyperparameter tuning
- Designed backend scripts for comprehensive data analysis from various high-voltage battery tests
- Enhanced the Graphical User Interface (GUI) of the data analysis tool, significantly improving user experience

Michigan State University, CSE 331

Undergraduate Learning Assistant

East Lansing, Michigan
January 2024 – May 2024

CSE 331 is the Data Structures and Algorithms Course at MSU taught by Professor Sebnam Onsay.

- Developed a project focused on Deques to foster learning for students
- Evaluated student-written algorithms for efficiency, correctness, and adherence to best practices

Native Projex, Inc

Backend Development Intern

Ho Chi Minh City, Vietnam
May 2023 - August 2023

Quirks.ai is a proof-of-concept app in development by Native Projex, Inc. The app's goal is to provide a trainable natural language companion for each user that helps them explore the world the way that fits them best.

- Enhanced search accuracy from 60% to 80% by automating the processing and categorization of unstructured data to engineer a refined dataset to train a fine-tuned version of Microsoft's DeBERTa machine learning model
- Developed the dynamic sort algorithm as an integral component of a filtering and sorting search framework to provide customers with best matching within major cities in Southeast Asia
- Utilized new vector search techniques and an emerging vector database called Weaviate that enabled the capability to search 100,000s of places

SKILLS

Programming Languages: Python, C++, Java, PostgreSQL, GraphQL, HTML, CSS, JavaScript, C, C#, Swift, Matlab

Technical Proficiencies: Git, Machine Learning, Linux, Tensorflow, Figma

ORGANIZATIONS AND LEADERSHIP

MSU XR Club, Workshop Director - East Lansing, Michigan

January 2024 – Present

MSU Crew Club - East Lansing, Michigan

September 2022 – May 2023