

# Carson Ellis

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crsnkntn.github.io

## Education

**University of Michigan**

Bachelor of Engineering, Computer Science

Ann Arbor, MI

May 2024

**Relevant Coursework:** Conversational AI, Human-Centered ML, Intelligent Programming Systems, Programming Languages, Computer Vision, Operating Systems

## Experience

**Michigan AI Safety Initiative**

**Organizer**

Ann Arbor, MI

Aug. 2023 - May 2024

Coordinated weekly discussions on AI Safety, fostering awareness and engagement.

Organized reading groups, guest speakers, and social events.

Facilitated AI Safety, Alignment, and Governance reading groups for 20+ participants.

**Michigan Institute for Data Science**

**Student Organization Committee Member**

Ann Arbor, MI

Aug. 2023 - May 2024

Maintained pathways for students interested in data science and AI safety careers.

**Event Facilitator**

Feb. 2024 - April 2024

Facilitated product cycle simulations for 30+ participants, improving understanding of AI product workflows and ethical product development.

**Northern Tier High Adventure Program**

**Remote Wilderness Guide**

BWCAW, MN

May 2023 - Aug. 2023

Led 150+ individuals on remote wilderness canoeing trips, enabling safety and self-sufficiency.

**Customer Service Representative**

May 2023 - Aug. 2023

Managed dozens of daily phone calls and in-person inquiries, resolving issues efficiently.

**Wilderness Guide Trainer**

May 2024 - June 2024

Trained dozens of individuals to guide remote wilderness canoeing excursions.

## Technical Skills

**Python, C, C++, PyTorch, C#/.NET, SQL, TensorFlow, Unreal, machine learning, bash, git**

## Technical Projects

**Tensor and deep learning:** Engineered a custom C++ library to support the training of 8+ deep learning models, focusing on classification and object detection.

**Real-time event prediction:** Preprocessed and cleaned 50M+ Reddit comments to build a machine learning pipeline capable of reliable real-time predictions.

**Vision transformer:** Designed and implemented Vision Transformer (ViT) models in Python, achieving 80% accuracy on 10K+ ASL data points.

**Python program synthesis:** Optimized speed and accuracy of a DeepMind synthesizer by 5%.

**Language Learning App:** Using gpt-3-turbo API, implemented a language learning app for 80+ languages. Trained backend NLP pipelines for user-intent classification and prompt construction.