

EDUCATION

Cornell University, College of Engineering | Ithaca, NY

BSc, Computer Science — GPA 3.901

EXPERIENCE

Cornell University | Ithaca, NY

Jan 2025 – May 2025

Teaching Assistant, *Deep Learning (CS 4782)*

- Aided course expansion up to ~200 students under Profs. Killian Weinberger and Jennifer Sun—preparing to scale to 500.
- Authored 2 and co-authored 1 paper reading quiz for the graduate section of the course on recent deep learning papers.
- Created, improved, and tested autograders for 3 of the 5 course's programming assignments (intro., LLMs, and RL).
- Prepared slides and presented in the 3-hour midterm review recitation open to the entire course; self-supervised learning.

Cornell University | Ithaca, NY

Dec 2024 – Jan 2025

Head Teaching Assistant, *Visual Imaging in the Electronic Age (CS 1620)*

- Served as Head TA and de facto secretary for Prof. Donald Greenberg; coordinated grading sessions and TA meetings.
- Supported lecture delivery by helping set up the slides, microphone, and assisting when technical issues arose.
- Supervised and developed the course assignments, covering graphics, human perception, and photogrammetry.

Star-Oddi | Reykjavík, Iceland

June 2024 – July 2024

Volunteer, *Snorraverkefnið*

- Prototyped an application to receive signals from the data loggers embedded within farmed salmon.
- Concurrently took courses at the University of Iceland while volunteering; cultural immersion/volunteer program.

Cornell University | Ithaca, NY

Aug 2023 – Dec 2023

Teaching Assistant, *Visual Imaging in the Electronic Age (CS 1620)*

- Helped create and presented a presentation on LLMs and VLMs as a bonus end-of-year lab session.

ETH Zürich | Zürich, Switzerland

June 2023 – Aug 2023

Research Intern, Robotic Systems Lab

- Co-created a zero-shot traversability estimation pipeline using open vocabulary image segmentation models.
- Integrated our traversability method with the ETH's perception & localization software stack for the ANYbotics ANYmal D.
- Distilled the traversability model to achieve a 401x speedup while retaining an mIoU of ~0.8, enabling us to deploy our model on an ANYmal which we brought onto a lively renovation site in downtown Zürich.
- Created an NVIDIA Omniverse/Isaac Sim/Orbit extension for 3D digital twin semantic mapping, set up for real-time semantic segmentation for both the simulated and live quadrupedal robot with asynchronous communication over ROS.
- Optimized visualization code to display 100^3 voxels with minimal overhead by writing a CUDA kernel to project each pixel embedding into the global voxel storage, where user segmentation requests are handled.

NVIDIA | Ithaca, NY

June 2022 – Aug 2022

Software Engineering Intern, *NVIDIA Omniverse*

- Developed an Omniverse connector to ingest and visualize native EnergyPlus outputs for energy performance analysis.
- Integrated OpenStudio with Omniverse to enable simulation-to-visualization workflows for BIM/BEM analysis using Grasshopper/Ladybug.

PROJECTS

Pixel-Swapping Masked-Autoencoders for Remote Sensing Pretraining

Sean Brynjólfsson*, William P. Huey*, Avery Avila*

Rigiditree: Locally-Rigid Decompositions for Dynamic Gaussian Splats

Sean Brynjólfsson

Automatically Rigged Gaussian-Splatted Character Models

Sean Brynjólfsson*, Justin Tien*, Evan Zhang*

Learned Traversability Priors for Visual Navigation

Sean Brynjólfsson*, Will Huey*

Let it SIMmer: Lazily-Evaluated Embeddings in Robotic Navigation and Digital Twins

Sean Brynjólfsson*, Will Huey*

LLMímir: Svá GPT-4, hversu vel talar þú fornorrænu? (So GPT-4, how well do you speak Old Norse?)

Sean Brynjólfsson