Sean Brynjólfsson

Hi. I'm Sean. I study Computer Science
@ Cornell University, College of Engineering.

1 Education

Major: Computer Science
Expected Graduation Date: May 2025
Cumulative GPA: 3.886

2 Experience

Student Researcher — **Robotic Systems Lab, ETH Zürich ✕ Cornell University**
Zürich, Switzerland. Summer 2023

While at the ETH, we conducted research on traversability for legged robots, namely the ANYbotics ANYmal D. We prototyped a novel semantic image segmentation model able to distinguish between traversable and untraversable terrain zero-shot from language and deployed it on the live robot. Simultaneously, we made an extension for Omniverse that voxelizes the environment while the robot walks around; a GUI interface can synchronously segments it based on a user's open vocabulary input.

Graduate Computer Vision, CS 6670 — **Cornell University**
Ithaca, NY. Fall Semester 2023

Building on our previous work in Switzerland, we investigated a novel vision-only approach to navigation by distilling a light model capable of running real-time (93x speedup) on an edge-device with a modest GPU. We showed it could generalize by rolling it out in various environments not in its training set, showing it could effectively avoid hazards with a simple heuristic.

Teaching Assistant, CS 1620 — **Cornell University** (x2)
Ithaca, NY. Fall 2023 & Fall 2024

I was a teaching assistant (and then head TA) for Dr. Donald P. Greenberg's introductory engineering class *Visual Imaging in the Electronic Age*, which is a crash-course overview of the history and recent research in many areas of Computer Graphics, Human Perception, and Computer Vision to cover current and future opportunities .

Software Developer — **NVIDIA ✕ Cornell University**
Ithaca, NY. Summer 2022

Over the Summer, a subteam of our lab engineered an Omniverse extensions to aid building design. The primary contribution we made was our EnergyPlus extension/connector, which takes in the native output of EnergyPlus and categorizes the information so that it can be visualized on a twin of the model in Omniverse; we also made an extension utilizing color to visualize sun-path conditions over time.

Volunteer Programmer — **Star-Oddi ✕ Snorraverkefnið**
Reykjavík, Iceland. Summer 2024

While on the Snorri Program, I spent my brief volunteer period at the environmental biotech company Star-Oddi, where I prototyped an application for farmed salmon that receives signals from their embedded data loggers, logs the signals, and then presents it on an online dashboard.

3 Projects

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

📇 Contact Information
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🖥 Programming Languages

Language	Rating
Python	☆☆☆☆☆
Java	☆☆☆☆
C/C++	☆☆☆
OCaml	☆☆☆
TypeScript	☆☆
Rust	☆☆
Bash	☆☆
CUDA	☆
ROS	☆
Gleam	☆

🏆 Awards & Recognition
Cornell Dean's List:
Fall 2021–Spring 2024
(Every Semester)

⛏ Research Interests
Digital Twins
Machine Learning
Geophysics
Digital Agriculture
Linguistics

⛏ Skills
Pytorch
Vector & Raster Design
NVIDIA Omniverse/Isaac Sim
Linux, Unbuntu
LaTeX
Desmos

👥 Groups & Involvement
Alpha Gamma Rho, Zeta
Cornell Anglers' Society
Old Norse Reading Club
Snorraverkefnið