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.

(Head) Teaching Assistant, CS 1620 — **Cornell University** (x2)
Ithaca, NY. Fall 2023 & Fall 2024
I was a teaching assistant (and then most recently head TA) for Dr. Donald 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, my subteam of our lab engineered Omniverse extensions for building information modeling. 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 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 Select Research 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

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

Awards & Recognition

Cornell Dean's List:
Fall 2021–Spring 2024
(All Semesters)

Research Interests

Graphics
Robotics
Digital Twins
Computer Vision
Digital Agriculture

Skills

PyTorch
Linux
Isaac Sim
Graphic Design
LaTeX
Desmos

Groups & Involvement

Cornell Anglers' Society
Old Norse Reading Club
Cornell Dairy Science Club
Alpha Gamma Rho, Zeta
Snorraverkefnið