

# Sean Brynjólfsson | jolfss.github.io

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## 1 Education

Cornell University, College of Engineering

Bachelor of Science, Computer Science, 2025 GPA: 3.901

## 2 Experience

#### Teaching Assistant / Deep Learning / CS 4782

Cornell University, Ithaca, NY, January 2025–May 2025

- Helped the course increase capacity to ~200 students under Profs. Killian Weinberger and Jennifer Sun.
- Authored multiple paper quizzes for the graduate section of the course.
- Created, improved, and tested autograders for programming assignments.
- Prepared slides and presented in the 3-hour midterm review recitation for the whole class.

#### Head Teaching Assistant / Visual Imaging in the Electronic Age / CS 1620

Cornell University, Ithaca, NY, August 2024–January 2025

- Served as Head TA for Prof. Donald P. Greenberg's interdisciplinary course on the history and trajectory of graphics.
- Developed labs and course assignments covering computer graphics, human perception, and photogrammetry.
- Supported lecture delivery and took primary responsibility for answering questions on the online course forum.

#### **Volunteer Software Developer**

Star-Oddi, Reykjavík, Iceland, June 2024–July 2024

- Volunteered as part of my experience while on the Snorri Program (Snorraverkefnið).
- Prototyped an application for farmed salmon while volunteering at the environmental biotech company Star-Oddi.
- Designed the application to receive and log signals from data loggers which are embedded in live salmon.

#### Teaching Assistant / Visual Imaging in the Electronic Age / CS 1620

Cornell University, Ithaca, NY, August 2023–December 2023

- Served as TA for Prof. Donald P. Greenberg's interdisciplinary course on the history and trajectory of graphics.
- Helped create and present a presentation on LLMs and VLMs as a bonus lab session at the end of the year.

#### Research Intern

ETH Zürich, Zürich, Switzerland, June 2023-August 2023

- Conducted research on traversability for legged robots, specifically the ANYbotics ANYmal D.
- Prototyped a novel semantic image segmentation model capable of zero-shot distinction between traversable and untraversable terrain from language inputs. Deployed on a live construction site.
- Created a GUI for our extension to synchronously segment the voxelized environment with open vocabulary classes.

#### **Software Engineer Intern**

NVIDIA, Ithaca, NY, June 2023-August 2022

- Engineered Omniverse extensions for building information modeling.
- Designed and implemented an Omniverse extension/connector that processes the native output of EnergyPlus.
- Visualized EnergyPlus outputs from the digital twin in Omniverse, using a self-assembled twin of Rhodes Hall.
- For fun, I developed an additional extension utilizing color to visualize daylight conditions over time on the model.

## 3 Skills

**Programming Languages:** Python, C/C++, Java, CUDA, OCaml, Bash, ROS **Technical Skills:** PyTorch, Linux, Isaac Sim, LaTeX, Vector/Raster Graphics

Research Interests: Robotics, Digital Twins, Computer Vision, Digital Agriculture, Graphics, Reinforcement Learning

## 4 Projects

#### Pixel-Swapping Masked-Autoencoders for Remote Sensing Pretraining

Sean Brynjolfsson, Will Huey, Avery Avila

#### **Automatically Rigged Gaussian-Splatted Character Models**

Sean Brynjolfsson, Justin Tien, Evan Zhang

## **Learned Traversability Priors for Visual Navigation**

Sean Brynjolfsson, Will Huey

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

Sean Brynjolfsson, Will Huey

LLMímir: Svá, GPT-4, hversu vel talar þú fornnorrænu?

Sean Brynjolfsson