

John S. Cost

Contact

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Me

A senior at Carnegie Mellon University specializing in machine learning and biology. I have hands-on experience in machine learning and software engineering. My technical experience is complemented by a broad interest in cancer and aging, as well as more specialized technical experience with computational biology and genomics problems. In addition to my interest in human health, I am deeply passionate about the transformative potential of biotechnology in revolutionizing sustainable agricultural practices and material goods. I believe computational and engineering approaches have massive potential for the enhancement of food security and in addressing environmental challenges, fundamentally reshaping our relationship with the natural world. **Really, I'm passionate about being a part of great solutions to serious problems!**

Education

- **Senior, Carnegie Mellon University**, Pittsburgh, PA
BA in Biology, Computational Biology Graduating Spring 25'

Interests

- **Passionate about problem-solving and computation. Love algorithms, and finding best solutions.**
- Exploring the applications of artificial intelligence in biotechnology.
- Cancer, aging, computational genomics approaches to improving agricultural practices and material goods.

Courses

- **Discrete Mathematics** Spring 23'
- **Data Structures and Algorithms** Spring 23'
- **Computational Biology Simulations and Algorithms** Fall 24'
- **Biology and Chemistry Wet Lab** Spring, Fall 24'
- **Graph Theory, Graph Learning** Fall 24'
- **Physics, Genetics, Cell Biology, Omics, Biochemistry** —Fall 24'

Experience

- **Undergraduate ML Researcher**, Benam Lung Microengineering Lab
Researcher Summer 24'
 - **Implementing ML techniques, including those related to optical flow, temporal sequence modeling, and object recognition.**
 - Designed and implemented entire project workflow, including data preprocessing, model development, and result interpretation.
 - Trained and implemented object recognition pipeline and corresponding result analysis package.
- **AI Summer Scholars Program**, Carnegie Mellon University
Instructor Summer 23'
 - **Lead summer program covering model architectures and development**
 - Instructed students in AI concepts and supervised practical projects
- **Member Services**, Pumpkin Ridge Golf Course
Manager Spring 19' - 21'
 - **Public facing role requiring leadership skills**

Skills

- Programming: Python, C, HTML / CSS, JavaScript, Bash/Shell scripting
- Machine Learning: Neural Networks, TensorFlow, NumPy, PyTorch, Model Architectures
- Software Development: version control (Git), agile methodologies, thorough documentation
- Wet lab skills— Aseptic technique, Cell Handling
- CAD— Fusion360, Solidworks, Blender