Timothy H. Kostolansky

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Education

Massachusetts Institute of Technology *Cambridge, MA*
Master of Engineering in Computer Science and Engineering *May 2024*
Bachelor of Science in Computer Science and Engineering *May 2023*
Bachelor of Science in Physics *May 2023*

Relevant Coursework: Machine Learning, Deep Learning, Statistical Inference, Natural Language Processing, Algorithms, Robotics (Manipulation, Task and Motion Planning), Quantum Physics, Relativity, Statistical Physics

Work and Research Experience

MIT CSAIL, Algorithmic Alignment Group *July 2023 – Present*
Graduate researcher for lab led by Dylan Hadfield-Menell that researches methods to align AI with human values
- Testing machine learning and task-and-motion-planning (TAMP) methods on robotic cars on various tasks to show usability of show paradigms in general learning systems
- Learning implemented using PyTorch and OpenTAMP

MIT Picower Institute for Learning and Memory, Bear Lab *September 2022 – April 2023*
Undergraduate researcher for lab led by Mark Bear that develops novel treatments for brain disease
- Developing and testing of convolutional neural network architecture with self-connectivity, mimicking the behavior of cell-to-cell connection that is present in the physical structures of the brain
- Neural network implemented in PyTorch

Second Spectrum Incorporated *June – August 2022*
Software engineer for sports data company that uses computer vision to track athletes in game film
- Upgraded and refactored video data pipelines from professional sports streams to company's S3 servers
- Used Temporal.io to protect from failure over long-running video protocols

MIT Laser Interferometer Gravitational Wave Observatory (LIGO) *February 2021 –August 2021*
- Updated prototype designs for the Fast Shutter System (protects high-sensitivity measuring equipment)
- Use of numerical physics simulation with Mathematica and hands-on work with designing and building shutter prototype

Activities and Leadership Experience

MIT Science Policy Review *April 2021 – September 2023*
Technology director for policy journal that publishes science policy reviews authored by members of the MIT community
- Maintaining and updating Review's website, uploading articles and covers

MIT Varsity Basketball *September 2019 – March 2022*
NCAA Division III athlete, competed with full course load, two-time NEWMAC Academic All-Conference selection

Japanese National Basketball Team *June 2019 – August 2019*
- Selected for National Team and trained at Ajinomoto National Training Center in Tokyo
- Competed in 2019 William Jones Cup in Taiwan, team earned bronze medal

Skills

Programming: Python 3, PyTorch, ROS, Julia, MATLAB, Mathematica, TypeScript
Language: English, Japanese (proficient), Italian (learner)
Interests: chess, tennis, basketball, ortholinear keyboards, meditation