Jay B. Nash

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Education

Connecticut College New London, CT

Bachelor's of Science, Computer Science and Physics *Aug 2022 — May 2026*

- Cumulative GPA: 3.54/4.0 | Departmental Computer Science Award, Presidential Scholar, Trustees Scholarship
- Relevant Coursework: Data Structures, Computational Intelligence, Robotics, Linear Algebra, Discrete Mathematics, Multivariable & Single Variable Calculus, Thermodynamics & Statistical Mechanics, Classical Mechanics, Modern Physics

Work Experience

Research Assistant May 2023 — Present

Autonomous Agent Learning Lab, Connecticut College *New London, CT*

- Designed a simulation environment underlying multiple studies on the simulation of evolution
- Led development of a novel framework for policy learning via derivative-free methods
- Maintained a distributed compute cluster to accelerate experiments across the research group

Student Network Administrator Aug 2023 — Present

Internet Services, Connecticut College *New London, CT*

- Member of L3 technology support team addressing network connectivity and security issues
- Stood up and led a student-run security operations center to augment professional staff

Teaching Assistant Aug 2023 — Present

Computer Science Department, Connecticut College *New London, CT*

- In-class teaching assistant for Data Structures and Computational Intelligence classes at Connecticut College
- Supervised out-of-class study sessions for both Computer Science and Physics classes

Selected Publications

Playing Atari Space Invaders with Sparse Cosine Optimized Policy Evolution

Jim O'Connor, Jay B. Nash, Derin Gezgin, Gary B. Parker

Pending Publication in AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment, 2025

Sparse Cosine Optimized Policy Evolution for Hexapod Gait Generation

Jim O'Connor, Jay B. Nash, Derin Gezgin, Gary B. Parker

Pending publication in IJCCI Conference on Evolutionary Computation and Theory and Applications, 2025

Simulating Evolutionary Dynamics in a Simple Environment

Jay B. Nash, Gary B. Parker, Jim O'Connor

Pending publication in Studies in Computational Intelligence, 2025

The Evolution of Complex Attributes in a Species of Simulated Agents

Jay B. Nash, Gary B. Parker, Jim O'Connor

IEEE Symposium on Computational Intelligence in Artificial Life and Cooperative Intelligent Systems, 2025

Projects

Research Assistant, Sparse Cosine Optimized Policy Evolution

- Led theoretical research into a new framework for policy learning, focusing on derivative-free optimization techniques

Developer, EvoSim

- Responsible for the development of the EvoSim package, enabling the simulation of allopatric speciation

Skills

- **Programming Languages**: Python, Java, Rust, C/C++, C#, Scheme
- **Technologies**: UNIX, Git, Neovim, PyTorch, EvoTorch, SQLite, Numpy, JAX, Numba