EVAN CONWAY

evanjayconway@gmail.com

EDUCATION

University of Virginia   August 2023 - Present
Bachelor of Arts, Computer Science and Mathematics   Anticipated Graduation: May 2026
Echols Scholar
Overall GPA: 4.00

WORK & RESEARCH EXPERIENCE

Palantir Technologies   May 2026 - August 2026
Incoming SWE Intern   *New York City*

U.S. Naval Research Laboratory   May 2025 - August 2025
Research Intern   *Washington D.C.*

· Developed Plan-Orchestrated Tree Assembly for Lookahead (POrTAL), a new probabilistic planning algorithm that outperforms current baselines on realistic tasks
· Prepared a research paper on POrTAL (submitted to ICRA 26)

Independent Mathematical Research   April 2025 - June 2025
Researcher   *Online*

· Researched the Guy-Selfridge conjecture with Fields medalist Terence Tao and others
· Work successfully resolved the Guy-Selfridge conjecture, along with several other related open problems
· Published paper preprint, *Decomposing a factorial into large factors*, currently under review in *Mathematics of Computation*. For more information, see Terence Tao's writeup of the project

U.S. Naval Research Laboratory   May 2024 - August 2024
Research Intern   *Washington D.C.*

· Performed research into improved probabilistic planning systems as part of the Navy Center for Applied Research in Artificial Intelligence
· Programmed a system to automatically detect and segment surfaces with objects on them based on pointcloud data
· Created a lightweight planning system that exhibited significantly improved performance on several domains
· Wrote a non-archival workshop paper, *Lightweight Probabilistic Planning with Macro Actions*, accepted to the 2024 AAAI Fall Symposium

Independent Mathematical Research   May 2024 - Present
Researcher   *Online*

· Worked on research related to Fuss-Catalan numbers and the area asymptotics of (sn, n)-Dyck paths in conjunction with another undergraduate student, James Harbour
· Work resulted in a paper, which is currently being prepared for submission

VICTOR Lab   June 2022 - August 2023
Intern   *Charlottesville, VA*

· Designed facial recognition and gesture recognition system for a humanoid robotics project sponsored by THK
· Improved simulation of underwater robots, as part of a U.S. Department of Agriculture project
· Created enclosure for full-size driving simulator, which was later displayed to Honda executives

PUBLICATIONS

- Boris Alexeev, Evan Conway, Matthieu Rosenfeld, Andrew V. Sutherland, Terence Tao, Markus Uhr, Kevin Ventullo. *Decomposing a factorial into large factors*. Submitted to **Mathematics of Computation**, under review (2025). `https://arxiv.org/abs/2503.20170`.

- Evan Conway, David Porfirio, David Chan, Mark Roberts, Laura Hiatt. *POrTAL: Plan-Orchestrated Tree Assembly for Lookahead*. Submitted to **ICRA 26**, under review (2025). `https://arxiv.org/abs/2512.06002`

- Evan Conway, James Harbour. *The Area Asymptotics of (sn, n)-Dyck Paths*. Manuscript in preparation.

TECHNICAL SKILLS

Languages: Java, Python, C/C++, CUDA, JavaScript, MATLAB, Mathematica, R, OCaml, Prolog
Developer Tools: Git, Docker, WSL
Libraries: ROS, Gazebo, pandas, NumPy, PyTorch, Sklearn, Hugging Face, Matplotlib, OpenCV, Unified Planning
Other Skills: LaTeX, PDDL, HTML/CSS