

EVAN CONWAY

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EDUCATION

University of Virginia

Bachelor of Arts, Computer Science and Mathematics

Echols Scholar

Overall GPA: 4.00

August 2023 - Present

Anticipated Graduation: May 2026

WORK & RESEARCH EXPERIENCE

Palantir Technologies

Incoming SWE Intern

May 2026 - August 2026

New York City

U.S. Naval Research Laboratory

Research Intern

May 2025 - August 2025

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

Researcher

April 2025 - June 2025

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

Research Intern

May 2024 - August 2024

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

Researcher

May 2024 - Present

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

Intern

June 2022 - August 2023

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: L^AT_EX, PDDL, HTML/CSS