

Dorian Snopko

1409 S. Birch Drive, Mount Prospect, Illinois | (224) 415-4808 | dsnopko2@illinois.edu | github.com/DorianSno

EDUCATION

University of Illinois at Urbana-Champaign | Champaign, IL

Bachelor of Science in Computer Engineering,

Minor: Business

Expected Graduation: May 2028

Prospect High School | Mt. Prospect, IL

GPA: 3.14/4.00

GPA: 4.50/4.00

PROFESSIONAL EXPERIENCE

ALE HALE

Software Engineering Intern

Bialystok, Poland

June 2026 - August 2026

- Built REST API integrations and automated data-validation tests to ensure integrity of migrated project data.
- Designed and built a proof-of-concept RAG-based AI assistant (Python, OpenAI API, ChromaDB) to automate responses to employee questions from internal documents, presenting findings and a recommendation to leadership.
- Migrated project tracking from Excel and paper-based methods to a new project management platform used by 75+ employees.

Kumon Tutoring Center

Tutor and Data Entry

Arlington Heights, Illinois

April 2023 - December 2025

- Tutored an average of 30 students per week in math and reading, tailoring lessons to individual skill levels.
- Entered and audited student session data across multiple grading periods to ensure accurate progress tracking.
- Maintained organized, accurate records of test grades, homework scores, and student progress data.

PROJECTS

CS2 Performance Analytics Platform

June 2026 - Present

- Built a full-stack analytics platform parsing proprietary demo files (Python, awpy) into a normalized PostgreSQL data model.
- Fixed undocumented parser bugs, including 64-bit Steam ID precision loss and halftime roster-swap tracking.
- Built a React/Vite frontend with a custom tactical-HUD visual system for browsing match history and per-player performance data.

CS2 AI Coach

June 2026 - Present

- Implemented a FastAPI backend with a tool-calling AI coaching agent built with the Claude Agent SDK..
- Used function-calling into a constrained, read-only data layer, preventing the agent from hallucinating statistics.
- Validated the underlying win-probability model via k-fold cross-validation and Brier-score calibration checks.

Monte Carlo Option Pricing Engine

December 2025 - Present

- Built a Monte Carlo pricing engine in Python for European options under risk-neutral geometric Brownian motion.
- Reduced estimator variance using antithetic variates and a control variate on the terminal stock price.
- Estimated Delta and Vega via finite differences with common random numbers, validating against Black-Scholes.

AI-Powered Calendar & Scheduling Agent

May 2025 - August 2025

- Built a lowcode agentic AI scheduling system in Cognigy that interprets natural-language requests.
- Integrated external APIs and AWS-based workflows to retrieve availability data and execute multi-step actions, such as a reservation.
- Developed workflows to update personal schedules, trigger reminders, and automatically book reservations based on the calendar.

ACTIVITIES

WaggleNet Research Team

Programming Lead

Champaign, Illinois

August 2025 - Present

- Created software and computers that monitor the humidity and temperature of beehives.
- Developed skills in hardware development by creating circuit boards that interfaced with the environmental sensors.

Financial Engineering Club

Project Lead

Champaign, Illinois

August 2025 - Present

- Served as Project Lead, directing a team of 6 on an option-pricing project for an interclub competition.
- Led the team to a 2nd-place finish in the interclub case competition with an interactive slide deck and program.
- Attended workshops and lectures on quantitative finance, risk modeling, and applications of machine learning in industry.

Delta Chi Social Fraternity

Recruitment Chair, Philanthropy Committee

Champaign, Illinois

August 2024 - Present

- Coordinated with the panhellenic organization to organize fundraisers benefiting the V Foundation for cancer research, raising over \$40,000.
- Direct recruitment efforts to successfully recruit over 60 new students, fostering growth and engagement.
- Served on the fraternity's executive board, overseeing the chapter strategy and daily operations for a 140 member chapter.

SKILLS

Python • C • C++ • JavaScript • React • FastAPI • PostgreSQL • AWS • LLMs • RAG • Agent Frameworks (LangChain) • Assembly (x86) • GitHub

RELEVANT COURSEWORK

Data Structures • Applied Machine Learning • Computer Systems & Programming • Computer Systems Engineering • Discrete Mathematics • Linear Algebra with Computational Applications • Probability within Engineering • Digital Systems Laboratory

ACHIEVEMENTS & CERTIFICATIONS

Dean's List (2020-2024) • AP Scholar with Distinction • National Honors Society (2020-2024) • Commendation of Biliteracy (Polish) • CISCO Certified Ethical Hacker • CISCO Certified IT