Dylan Epstein-Gross

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Princeton computer science student interested in researching and engineering for social good,
particularly through AI, machine learning, and robotics.

EDUCATION

Princeton University, Princeton, NJ

Graduating May 2025

Bachelor of Science in Engineering -- Computer Science

GPA: 4.0

- Relevant Coursework: Data Structures & Algorithms, Fundamentals of Statistics, Advanced Vector Calculus, Computer Systems, Advanced Software Engineering Techniques, Machine Learning, Advanced Linear Algebra, Discrete Math
- Academic Awards & Recognition: George B. Wood Legacy Sophomore Prize (top two students in year)

James S. Rickards High School, Tallahassee, FL

IB Diploma Graduate June 2022

Valedictorian

GPA: 4.0/4.0, **SAT:** 1580/1600

- 17 AP Exams (5/5 on each) -- including Computer Science A, Calculus BC, Physics C, Statistics
- Academic Awards & Recognition: U.S. Presidential Scholar; National Merit Winner; Florida Sunshine State Scholar

TECHNICAL SKILLS

Programming (Python, Java, MATLAB, HTML/CSS/JS, R, SQL, C, C++), Web Development (Flask, Django, MERN stack, GitHub, Linux), machine learning & data science (Spark, PyTorch, Tensorflow), mathematics (probability, statistics, optimization)

WORK & VOLUNTEER EXPERIENCE

Machine Learning Engineer Intern, Ticket Wallet, LLC, Princeton, NJ

Summer 2023

• Working with startup CTO and small engineering team to develop Selenium web-scraper and reinforcement learning pipeline for automated dynamic ticket pricing w/ PyTorch, Apache Spark, AWS Sagemaker

Deep Learning Research Intern, University of Washington Ocean Dynamics Group, Seattle, WA

Summer 2023

Research intern for Prof. Manucharyan, designed Tensorflow models for predicting Sea Surface Temp. values -- full
data pipeline & novel Generative Adversarial ConvLSTM used to obtain 60% decrease in loss from baseline methods

Research Assistant, Intelligent Robot Motion Lab, Princeton, NJ

2023-present

Working with PhD student to evaluate monocular depth perception algorithms for CrazyFlie & Tello quadcopters
 Statistics & R Tutor, McGraw Center for Teaching and Learning, Princeton, NJ
 2023-present

• Individual tutoring and group study halls for students in Fundamentals of Statistics and R Programming classes

Undergraduate Course Assistant, Princeton University Computer Science, Princeton, NJ

2023-present

Grade programming assignments for Data Structures & Algorithms class, debugging & providing detailed feedback
 Data Science Intern, Quantcap, LLC, Cambridge, MA
 Winter 2023

• Winter 2023 Intern, worked in small group to develop real-time Flask web-scraper and 1-D CNN Tensorflow model for short-term stock market prediction and portfolio allocation; presented overall returns of >30% to company CEO

Junior Software Engineer (and Puzzles Writer), The Daily Princetonian, Princeton, NJ

2022-present

Working with team of undergraduates to develop new features of newspaper's MERN-stack app, as well as produce new
mobile React Native app with Expo Go. Also write weekly crossword puzzles for newspaper's Puzzles team.

Software Developer, Princeton Hack4Impact, Princeton, NJ

2022-present

- Working with small team of students to develop MERN-stack data visualization platform for NJ Tree Foundation
- Frontend development in React Leaflet and backend managing PostgreSQL database

Research Intern, Florida State University Optimal Robotics Lab, Tallahassee, FL

2020-2022

- Research intern for Professor Christian Hubicki, working with PhD students to study risk-based trajectory optimization algorithms in bipedal locomotion -- particular emphasis on regression & feedback control in Python and MATLAB
- Co-author on paper submitted to International Conference on Robotics and Automation (ICRA) "Locomotion as a Risk-mitigating Behavior in Uncertain Environments: A Rapid Planning and Few-shot Failure Adaptation Approach."

EXTRACURRICULAR ACTIVITIES & LEADERSHIP

DataDebut Team Lead, Princeton Data Science Club Board

2022-present

Leading small team to organize and teach ML/Data Science workshops for Princeton students

Content Coordinator, Princeton Science Olympiad Invitational Executive Board

2022-2023

• Supervised test and content creation for in-person Science Olympiad competition with 900+ high-school competitors Events Coordinator, Princeton University IgniteSTEM, Princeton, NJ 2022-2023

- Developed resources and hosted book launch for introducing design thinking concepts to K-12 students
- Managed speakers, venue, events for Winter Educator Conference for 100+ attendees from across the country

President, Rickards Mu Alpha Theta; Lead Director, Rickards Fall Math Invitational; President, Rickards Programming Club; President, Rickards Language Club; Captain, Rickards Science Olympiad 2018-2022

AWARDS & HONORS

USA Computing Olympiad (Gold Division) | **Presidential Volunteer Service Award** (Silver Division) | **Carnegie Mellon Informatics & Mathematics Competition** (4th place team) | **American Invitational Mathematics Exam** (4-time qualifier)