

EDUCATION

Princeton University

G.P.A. of 3.72

2023 - 2027

Princeton, NJ

B.S.E. in Mechanical & Aerospace Engineering; Intended Minors in Statistics & Machine Learning, Robotics

- Relevant coursework: PHY105, PHY106, COS126, MAE305, MAE306, MAE221, MAE222, MAE223, MAE321, MAE325

Ridgewood High School (RHS)

2019 - 2023

G.P.A. of 4.502 (weighted), Valedictorian, AP Scholar with Honor, 2021 National Merit Letter of Commendation Recipient

Ridgewood, NJ

PROFESSIONAL EXPERIENCE

Princeton Robotics, PRPL Lab

2025 - Present

Robotics-focused reinforcement learning researcher under Dr. Tom Silver

Projects: Soft-body motion/action planning

Princeton Neuroscience Institute

2024 - Present

Reinforcement learning researcher in partnership with AGI Reading Group under Dr. Sebastian Seung

- Researched and implemented various RL techniques (Actor-Critic, PPO, imitation learning, deep-Q networks, policy gradient)
- Implemented algorithms for synthetic dataset collection and validation
- Developed a parallelized pretraining and training algorithm for an agent that automatically proofreads neuron segmentation in Neuroglancer via Chrome

La Fondazione Giorgio Cini, ARCHiVe

2024 - 2024

Machine learning and full-stack desktop app development intern

- Independently developed the frontend and backend for a QT-based desktop app utilizing deep-learning techniques (SegmentAnything), improving workplace efficiency by ~600%
- Investigated and tested deep-learning-based 3D modeling techniques (Gaussian splatting)

Bergen Community College, Department of Chemistry

2022 - 2023

Research intern under Dr. Ara N. Kahyaoglu, Physical Sciences Department Chair

Projects: Antimicrobial and Synergistic Properties of Nanoparticles, Building Lewis Dot Structures of Binary Compounds/Ions, Photovoltaics Research

- Successfully conducted research as part of a diverse team of chemistry undergraduate researchers. Involved frequent problem solving, daily interactions with faculty advisor, and communication

AWARDS

NJ STEAM Tank™ Challenge

2021 - 2022

Project lead for ICE Pack team

- Winner of the 2022 NJ STEAM Tank™ Challenge and \$2500 in project funding
- Winner of the 2022 Societal, Social, and Emotional Impact Award; Justice, Equity, Diversity & Inclusion Award; Subject Matter Expert Award; Creativity & Exemplar Integration of the Arts Award
- Finalist in the 2021 NJ STEAM Tank™ Challenge and winner of the 2021 Innovation Award

EXTRACURRICULARS

Princeton Society of Asian Scientists and Engineers

2024 - Present

Co-treasurer

- Acquired ~\$10,000 in funding from engineering departments and student government to help undergraduates attend national SASE conference in Boston

Princeton Racing Electric Club

2024- Present

MK2BC Engineer

- Engineer working on PRE's MKB2C car, preparing it to clear all competition guidelines, design custom PCB electronics

Natural Language Processing Reading Group

2024 - Present

Study various papers from industry & academia related to natural language processing

Advanced General Intelligence Reading Group

2024 - Present

Study various papers from industry & academia related to world models, agents, benchmarking, etc. under guidance from Dr. Sebastian Seung

Patent Applicant

Present

Pending patent applicant for an induced hypothermia cooling blanket based on gaseous CO₂ circulation technology

SKILLS

Programming Languages: Python (Qt, PyTorch), Java, JavaScript, C++, HTML/CSS

Software: Google Product Suite, Excel, Miro, Blender, AutoCAD, KiCad, Mathematica, Arduino, Figma, Inkscape, Krita, Filmora X, NX, Altium, Creo, Matlab

Certifications: CPR, First Aid, EDX Machine Learning, Coursera Python (Data structures, databases)