Jasmine Khalil

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Education

The Pennsylvania State University - Schreyer Honors College — **State College, PA**
B.S. Electrical Engineering, Minor: Mathematics, GPA – 3.96/4.0 — *Aug. 2022 - May 2026*

Involvment and Experience

J.P. Morgan Chase & Co
AI Studio Project — *Sept. 2024 - Present*

- Gaining hands-on experience developing a model that predicts future price movements of financial instruments during the last ten minutes of the NASDAQ exchange trading session.

Tau Beta Pi Honor Society Member
Penn State Tau Beta Pi PA Beta — *Sept. 2024 - Present*

- Member and volunteer of Tau Beta Pi - National honor society consisting of the top 1/8th of juniors in Engineering fields.

Electrical Engineering First Year Seminar Coordinator and TA
EECS - Penn State University — *Aug. 2024 - Present*

- Organizer and instructor for the Arduino EE First-Year Seminar

NSF REU Program at Rutgers University
DIMACS - Rutgers University — *May 2024 - July 2024*

- Conducted research under the mentorship of Dr. Pierre C. Bellec on modeling statistical mechanics models using Coupling from the Past (perfect sampling).

Cornell Tech AI Studio Fellow
Cornell University - Break Through Tech — *May 2024 - Present*

- Engaging in a 12-month skill-based curriculum using industry-standard ML tools and exploring and applying deep learning techniques in computer vision and natural language processing.

HKN Eta Kappa Nu EECS Honor Society Member
Penn State IEEE-HKN Epsilon Chapter — *April 2024 - Present*

- Member and volunteer of HKN - National honor society consisting of the top seniors and juniors in EECS fields.

Female Study Group Leader for Mathematics Differential Equations Course
Women in Engineering Program (WEP) — *Jan. 2024 - May 2024*

- Coordinated and instructed a Mathematics differential equations study group for women in engineering.

Selected Projects

Coupling from the Past for Statistical Mechanics Models REU Project (Link) — **Piscataway, NJ**
DIMACS REU

- Final paper from my research work during the DIMACS REU program under the mentorship of Dr. Pierre C. Bellec, funded by the NSF.

Neural Network Binary Classification Using Gradient Descent Project (Link) — **State College, PA**
Neural Networks

- A breakdown and analysis of the mathematics for designing a neural network for binary classification using gradient descent.

Deep Neural Network for Image Classification (Link) — **State College, PA**
Neural Networks

- Designed, tested, and improved a DNN to detect electronic components.

Awards and Accomplishments

Department of Electrical Engineering General Scholarship — **Penn State University**
- Awarded in recognition of my high academic and extracurricular efforts. — *2024-2026*

Machine Learning Foundations Course — **Cornell University**
- Completed the ML foundations course as part of my Break Through Tech AI fellowship. — *2024*

Evan Pugh Scholar Junior Award — **Penn State University**
2024

- Awarded in recognition of being in the top 0.5% of juniors at Penn State.

The President Walker Award **Penn State University**
- Awarded in recognition of my high academic efforts. *2023*

Skills

Programming	Python, C, C++, MATLAB, HTML/CSS
Software	Solidworks, Multisim, LabView, Arduino IDE, Cura
Tools	LaTeX, Figma, Git
Hardware and Prototyping	3D Printing, Digital Circuit Design, Raspberry Pi, Micro controllers
Training	EE and IoT Training

Relevant Coursework

MATH 312H	Honors Concepts of Real Analysis — SP 25
EE 465	Probability for Electrical and Computer Engineers — SP 25
EE 455	Introduction to Digital Image Processing — SP 25
EE/CMPEN 454	Introduction to Computer Vision — FA 24
MATH 250	Ordinary Differential Equations — FA 23