

Ethan Do

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EDUCATION

Princeton University

Princeton, NJ

Bachelor of Science and Engineering in Computer Science

May 2026

Relevant Coursework: Data Structures and Algorithms, Video Game Development, Introduction to Programming Systems, Advanced Programming Techniques, Introduction to Machine Learning, Reasoning About Computation, Linear Algebra

Programming Skills/Tools: Java, C#, C, Python, HTML Markdown, Arm Assembly, Git, Unity, Adobe

PROJECTS

Seam Carver

April 2023 - May 2023

- Implemented a content-aware resizing tool in Java used utilized for photo editing in photo editing software such as Adobe Photoshop
- Checks for vertical seams (path of lowest energy pixels connected from top to bottom) and horizontal seams in a photo and removes them if necessary, while maintaining the features of most interest like aspect ratio and set of objects present
- Implemented Dijkstra's algorithm to enhance the seam selection process on an acyclic directed graph, which identified the optimal seams with the lowest energy, and to build a priority queue-based shortest path in order to efficiently analyze and remove unwanted seams

Platformer Video Game

October 2021 - January 2022

- Designed a platform video game from scratch that allows users to traverse a 2D environment and interact with various entities and obstacles across the environment
- Used Unity's scene management in conjunction with C# scripting for multi-level functionality in order to keep track of user progression
- Created all in-game assets, such as character models, backgrounds, and animation sequences using Adobe Photoshop
- Wrote C# scripts by incorporating object-oriented principles, component-based design, and simulated forces to control character behavior, enemy AI, as well as interactive elements between characters and the environment
- Collaborated with peers to implement a version of rapid testing in order to expedite bug testing by a month

LEADERSHIP EXPERIENCE AND EXTRACURRICULARS

Princeton Racing Electric

Princeton, NJ

Member of Accumulator Team

September 2023 - Present

- Worked with printed circuit boards (PCBs), developed intricate circuits, and optimized battery configurations to power the drivetrain of an amateur formula car to compete in the Formula Hybrid + Electric Tournament

KoKo Pops Dance Company

Princeton, NJ

Production and Design Team Member

May 2023 - Present

- Produced compelling digital content including videos and eye-catching poster designs featuring dance members to enhance promotion efforts of the group

Vietnamese Student Association

Princeton, NJ

Head of Social Media and Marketing

August 2023 - Present

- Coordinated cultural events to spread awareness around campus and educate others about Vietnamese customs and traditions.
- Provided a place of community for those of similar ethnic backgrounds to empower and give support to one's cultural identity

INTERESTS

Interests: Custom PC/mechanical keyboard building, Formula 1, powerlifting/swimming