# Ethan Zemanick

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### **EDUCATION**

## UNIVERSITY AT BUFFALO, THE STATE UNIVERSITY OF NEW YORK

Buffalo, NY

Bachelor of Engineering

Expected Dec 2023

Major in Computer Science; Minor in Electrical Engineering

Cumulative GPA: 3.71/4.0; Dean's List 2019-2021 Member of the University at Buffalo Honors College

Relevant Coursework: Algorithms for Modern Compute Systems, Artificial Intelligence, Computer Organization, Algorithms and Complexity, Data Structures, Systems Programming, Intro to Discrete Structures, Signals and Systems

LANSING HIGH SCHOOL Lansing, NY

Regents Diploma with Advanced Designation with Honors, and Mastery in Math and Science

Jun 2019

New Visions Engineering at Cornell University

Studied and completed research with graduate students in the Cornell NanoScale Facility, used Atomic Force Microscopy to examine sample wafers for surface defects

Robotics Club

Solo programmer, wrote autonomous program to control robot which used computer vision to score max points

#### WORK EXPERIENCE

**Mezmeriz Inc.** (6 employee venture-backed startup)

Ithaca, NY

Summer Intern

Jun 2018 – Aug 2018; Jun 2019 - Aug 2019

- Wrote a program to generate random 3D point clouds of doors to train a neural network (2019)
- Manipulated and spliced 3D point clouds together from laser scans to create a larger mesh of the area (2019)
- Studied basics of TensorFlow and Keras, and computer vision (2019)
- Developed and programmed a 360 panorama imaging device in Python (2018)
- Successfully coded and remotely operated a Raspberry Pi via SSH and Linux Terminal (2018)

## UNIVERSITY PROJECTS

AI Generated Art Nov 2022 - Dec 2022

- Created a GAN model to generate images based on random input, which was trained on the ArtBench-10 image dataset
- Received a score of 110 on the assignment for project uniqueness, presentation, and results

Blender Digital Twin Aug 2022 - Dec 2022

- Part of a research team to create a digital twin of a blender, specifically in charge of creating a digital model of the blender
- Using the Blender software, created a detailed 3D model of the blender, with animations and functionality for blade rotation, button pressing, particle generation and manipulation, and an animated scaling vortex. All of which interact with each other for a life-like blender model
- Uploaded the model into a web-based GUI and successfully visualized real world dummy data on it

## **ACTIVITIES**

Soccer Intramural Captain Buffalo, NY; Lansing NY Sep 2019 - Present

• UB Intramural Soccer Champion in Fall 2022

Aug 2017 - Nov 2018

Varsity soccer state champion 2017 and 2018; starting defender; IAC First Team All-Star

ADDITIONAL

**Technical Skills**: Advanced in Python, C, C++, Scala; Proficient in Javascript, HTML/CSS

Languages: Fluent in English; Limited proficiency in Spanish

Awards and Scholarships: President's Award for Educational Excellence, RIT Computing Award, Pride of New York

Scholarship, UB Provost Scholarship