

# ZANDER RAYCRAFT

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## EDUCATION

### Vanderbilt University

BS Computer Science and Mathematics *GPA: 3.4*

Nashville, TN

August 2021 - May 2025

## WORK EXPERIENCE

### Vanderbilt department of Computer Science

*Student Researcher*

Nashville, TN

January 2023 - Present

- Developed Port-Hamiltonian-derived machine learning model leveraging computer vision to simulate a physical environment for testing of soft robotics
- Designed and prototyped a reactive soft robot and the embedded controller for the robot, written in C++

### Puzzler (formerly Nucleo)

*Web3 Full stack engineering intern*

Remote

May 2023 - August 2023

- Built a non-hackable, zero-knowledge rollup based, full stack, Voting System using Typescript and Aleo's DSL Leo for production

### Goldman Sachs

*Student participant in Engineering Summit*

Remote

December 2022 - April 2023

- Joined esteemed cohort, fostering industry connections for tech excellence. Completed specialized Goldman Sachs modules
- Developed a C++/Python based software for parsing and minimizing extensive data sets

### Vanderbilt Student Volunteers for Science

*Software Engineer/IT Board Executive*

Nashville, TN

December 2022 - Present

- Overhauled website and improved runtime efficiency by ~34% of internal software for team communication and scheduling of student teaching events
- Responsible for managing a student volunteer group for organizing and teaching STEM lessons to middle school students

### Urbangate Capital

*Investment Analyst/Technology development intern*

Nashville, TN

August 2021 - October 2022

- Developed proprietary investment risk analysis software utilizing REST api and Python, producing a 0% default rate on investments
- Underwrote real estate investment deals to indicate future value and quality

### Phemex Financial Pte. Ltd.

*Student Researcher*

Remote

May 2022 - August 2022

- Published paper on blockchain governance, analyzing application and future prospects through development methods and on-chain analysis
- Published an article analyzing a Senate bill centered around blockchain technology promotion

## SKILLS

Programming Languages:	Javascript, Typescript, Python, Rust, C++, HTML/CSS, Leo, MySQL, Flutter
Tech Stack:	Express.js, React.js, React Native, Linux/UNIX, Node.js, Flask
DevOp Skills:	REST api, Amazon Web Service (AWS), Docker, Automated testing (Pytest, Gtest)

## PERSONAL PROJECT

### Emotion Classifier *Python, Tensorflow, OpenCV, Numpy, Pandas*

<https://github.com/zander-raycraft/emotion-classifier>

The program designs and trains a neural network using Kaggle data, processes real-time camera footage for the model, and classifies and displays the user's current emotion instantly.

## CAREER CERTIFICATES

### Quantitative Research Certificate

JPMorgan Chase & Co.

Engaged with the Quantitative research division, delivering impactful contributions across four critical assignments; developing 4 python machine-learning models to analyze complex data, yielding ~99% accurate predictive insights

August 2023