# Joseph DiNiso

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## WORK EXPERIENCE

### Microsoft, *Redmond, WA*—Software Engineer I

August 2022 - Present

- Currently working in Azure Compute as a software engineer.
- Work on developing Azure Core using a wide variety of tools including **C++, C#,** and **Rust**.

### Garmin International, *Cary, NC* —Software Engineering Intern

May - August 2021

- Worked for the Automotive OEM team as a software engineer on camera software developed for BMW infotainment systems.
- Assisted in maintaining the fisheye dewarping software developed for the camera.
- Implemented performance profiling features and other developer tools to assist in debugging and improving the performance of the camera dewarping code.
- Worked primarily with **C++** and **Python** on a **Linux** host machine.

### Progeny Systems, *Manassas, VA— Machine Learning Engineering Intern*

May - August 2020

- Worked in the Intelligent Systems Group to build and improve a person and vehicle reidentification model using the CenterNet detection network.
- Worked with clustering algorithms to improve the effectiveness of an unsupervised person re-identification process.
- Compiled and organized large datasets to be used in the training of **convolutional neural networks**.
- Developed in **Python** and used **OpenCV**, **PyTorch**, **Docker**, and **Ubuntu** extensively.

## EDUCATION

### Virginia Tech, Blacksburg, VA — *B.S. in Computer Engineering*

Graduated May 2022

- Cumulative GPA: **3.85,** In Major GPA: **3.85**
- Pursuing a primary focus in machine learning, and a secondary focus in networking & cybersecurity.

## INDUSTRY SKILLS

**Proficient:**

**Python**: OpenCV, PyTorch, NumPy
**C++**, **C#**
**Linux**: Ubuntu, Bash scripting

**Familiar:**

C, C#, Rust
**Web Dev**: HTML, CSS, ReactJS

## RELEVANT COURSEWORK

AI & Engineering Applications
Digital Image Processing
Intro to Computer Vision
Machine Learning
Data Structures & Algorithms

## AWARDS & ORGANIZATIONS

**Sigma Phi Delta Engineering Fraternity** - President, Professional Chair

**Dean's List with Distinction** - 4 consecutive years

## RELEVANT PROJECTS

**QR Detection** - Created a QR detection system similar to Spotify's to work with YouTube embedded URLs

**Virtual Drum Simulator** - Used applied computer vision techniques to create an augmented reality drum simulator

**Maze Solver** - Solves any given maze using a backtracking algorithm written in C++

**Personal Website** - Created a resume website using HTML and CSS

**PyTetris** - Programmed Tetris in Python using the PyGame library.

*Last Updated: 1/19/23*