

Nicole Hernandez

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Education

Georgia Institute of Technology | Atlanta, GA

January 2022 – December 2024

Bachelor of Science in Computer Science, GPA 3.74

Faculty Honors, Dean's List

- Coursework: Machine Learning (Fall 2024), Systems & Networks, Computer Organization & Programming, Design & Analysis of Algorithms, Computer Graphics, Computer Audio, Computer Simulation, Combinatorics

Georgia Southern University | Statesboro, GA

Graduated December 2019

Bachelor of Science in Civil Engineering, GPA 3.97

Summa Cum Laude

Experience

Microsoft – Azure HPC/AI

May 2024 – August 2024

Software Engineering Intern

Atlanta, GA

- Developed and automated a daily pipeline trigger, enhancing the efficiency of resource validation and deployment processes. (**PowerShell**)
- Created and integrated PowerShell scripts to dynamically manage and update VM Scale Sets (VMSS) configurations, ensuring optimal performance and compliance.
- Implemented a feature to select specific VMSS resources for checks during manual pipeline runs, improving flexibility and control in resource management.
- Optimized VMSS tag checking and configuration by utilizing hash tables and ensuring accurate default and blocking tag application.
- Enhanced the Perfgate VMSS Creation Function App by updating the accelerated networking feature and adding a scan mode for resource monitoring, reflecting attention to detail and a commitment to quality.

Amazon – Robotics AI

May 2023 – August 2023

Software Development Engineering Intern

Nashville, TN

- Analyzed a dataset of 10,000+ samples against segmentation, CRAFT, and OCR deep learning models. (**Python**)
- Plotted data visualizations of key findings derived from the analysis. (**Python, Jupyter Notebook, Matplotlib**)
- Authored a comprehensive research document outlining the data analysis procedure and insights derived.
- Designed a text-from-image recognition service using pre-trained machine learning models on CUDA. (**Python**)
- Implemented said service to reduce operational costs in fulfillment centers by around \$50M annually. (**Python**)
- Reduced annotation costs and Takt time by 80% by designing & implementing an annotation pipeline to improve existing machine learning models. (**Python, AWS Lambda, SageMaker Ground Truth, DynamoDB**)
- Authored clear and detailed design documents for the text-from-image recognition service pipeline and annotation pipeline, outlining approaches and integration tests.

The Home Depot – OrangeWorks

August 2022 – December 2022

Software Engineering Intern

Atlanta, GA

- Used ROS to collect LiDAR data from a robotic quadruped scanning different distribution centers.
- Extracted point clouds and improved scanning accuracy by reducing the speed of the quadruped. (**Python**)
- Created and presented an application prototype to stakeholders, increasing financial support by 20%. (**Figma**)
- Designed several unit and integration tests, resulting in a 99% uptime when running the service. (**Python**)

Cardano Blockchain (self-employed)

July 2020 – November 2020

Stake Pool Operator

Remote

- Managed three stake pool nodes on Google Cloud Platform with over \$3.5M in combined staked assets.
- Generated sensitive files in an air-gapped offline machine and stored them in a 256-bit AES encrypted device.

Skills

Programming Languages: Python, PowerShell, Java, C, C#

Technologies: AWS, SageMaker Ground Truth, PyTorch, Tensorflow, Computer Vision, OpenGL, CUDA, ROS

Languages: Spanish (native), English (fluent), Japanese (intermediate), Italian (beginner)