

# NICHOLAS PETRILLI

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## EDUCATION

**Marist College**, Poughkeepsie, NY

Master of Science – Computer Science

May 2024

Bachelor of Science – Computer Science

January 2023

Major: Software Development, Minors: IT/IS

GPA: 3.8 / 4.00 Dean's List every semester

## EMPLOYMENT

Information Technology Applications Intern at Xylem

Summer 2022

- Created and updated application architecture documentation.
- Created and updated various process flow and roadmap diagrams.
- Developed a SharePoint Site for internal social media communications.

Warehouse employee at ABB Optical Group

Summer 2021

Busboy at Sergio's Restaurant

2016-2019

## RELEVANT COURSEWORK AND PROJECTS

### Computer Science/Information Technology/Information Systems

- Built a full stack Metric Monitor application which collects the system's CPU, Memory and Disk information using Java Spring Boot, React JS, Node JS, and SQLite (3-person team)
- Built a full stack Ride Sharing App using React Native, Google Maps API and Google Authentication, JavaScript and SQL run on Linux Server (5-person team)
- Developed multiple parallel pattern matching algorithms in C++ for tracking word counts in large files using C++ threads, OpenMP for multi-core CPUs, MPI for distributed systems, and CUDA for GPUs
- Built plugins on a client-server Java based Blackjack application for making the correct play according to the basic strategy, making the correct bet by card counting, and implementing bots.
- Developed multiple projects using elementary data structures, binary search trees and dynamic programming in Java
- Completed various AI labs on the Iris and MNIST datasets in Google Colab using Python, TensorFlow, NumPy, Pandas and Keras
- Built the software for a functional operating system run in the browser using Typescript and HTML5
- Built the software for a functional 6502 microprocessor in TypeScript
- Programmed a concurrent Warzone game using distributed programming in Erlang

## SKILLS

Languages:

Java, TypeScript/JavaScript, Python, C++

Networking Technologies:

TCP/IP, Routing Protocols

Web Development:

HTML, CSS, React JS

Databases:

MySQL, SQLite

Cloud:

AWS

## ACTIVITIES

Studied Abroad – Marist Italy

Spring 2022

Volunteer with Marist Campus Ministry

2019-2023

Captain of Valhalla High School Varsity Basketball

2016-2019

Amateur Athletic Union Travel Basketball

2014-2019