

NICHOLAS PETRILLI

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EDUCATION

Marist College, Poughkeepsie, NY
Master of Science – Computer Science
Bachelor of Science – Computer Science
Major: Software Development, Minors: IT/IS
GPA: 3.8 / 4.00 Dean's List every semester

May 2024
January 2023

EMPLOYMENT

Information Technology Applications Intern at Xylem *Summer 2022*

- Developed comprehensive architecture documentation outlining the design, functionality, and integration of wastewater treatment pump systems.
- Designed and maintained process flow diagrams that mapped out the operational workflows of wastewater treatment systems, from pump initiation to processing and monitoring.
- Created roadmap diagrams to outline the development and deployment phases of our pump systems.
- Developed a SharePoint Site for internal social media communications.

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

SKILLS

Languages: Java, TypeScript/JavaScript, Python, C++
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*