Patrick S. Sanpietro

sanpietro.pat@gmail.com |1654 Old Mill Road Wantagh, New York 11793 |**516-776-6635**

Education

Northeastern University, Boston, MA   *May 2024*
Combined Major - Computer Science / Computer Engineering
GPA 3.547

Relevant Coursework: Object-Oriented Design, Software Engineering, Programming in C++, Fundamentals of Digital Design, Fundamentals of Networks, Circuits and Signals, Calculus 3, Embedded Design, Fundamentals of Computer Science, Algorithms and Data, Database Design, Logic and Computation, Discrete Structures, Electronic Materials, Probability and Statistics, and Fundamentals of Linear Systems

Chaminade High School, Mineola, NY   *June 2019*

Skills

Java, Python, TypeScript, React,REST API, Eclipse, Docker, mySQL, SQLite, DataGrip, VSCode, Dynamic Programing
Algorithm Analysis,Racket, C++, Verilog, Vivado, AutoCAD, Excel, Excel Basic, Solidworks, Matlab, Scopy

Work Experience

Teaching Assistant for Object-Oriented Design Boston, MA   *September 2023 - December 2023*
Assisted professors in all grading tasks.
Led Office Hours for students to ask questions about source material and homework.
Led Lab Sections for students to study and work on Lab assignments.

Nuvera/ Technology Intern Billerica, MA   *January 2022 - July 2022*
Led material prep and construction of RnD PEM fuel cell stacks and tested stacks on proprietary hardware.
Led a durability campaign that ended and inspected the cells to determine the cause of failure.
Maintained historical data from testing on Excel, populated through the use of an Excel Basic macro.
Asked by upper management to stay on for an additional month to train and onboard incoming Fall co-op.

Chubb Insurance/ Virtual/Remote Intern Jersey City, NJ   *July 2020 - August 2020*
Shadow Small Commercial Digital team and their tasks.
Researched companies that fit within the scope of small commercial insurance.

Academic Projects

Spreadsheet Application   *November 2023*
Created a spreadsheet application with a group of classmates with TypeScript and React. Application was
locally hosted and performed all basic functionality of a spreadsheet such as inputting data and formulas.
Added additional features to the spreadsheet to export the data as a .csv and import .csv files.

GameManager Application   *November 2023*
Created a command line program in C++ that launches a GUI and plays a custom variation of classic games like
Pong, Galaga and Snake. The program was built using ImGUI, SFML and ImGUI-SFML to facilitate GUI elements.

Full-Stack Website   *April 2023*
Created a full-stack project constructed of three Docker containers using DataGrip, Python, and AppSmith
to construct a back-end database alongside a REST API to interact through the containers to modify the database.
Created a front-end app through AppSmith to connect user input with database modifications/data access.

BattleSalvo Application   *May 2023*
Created a game similar to Battleship within Java using the MVC design concept. The program made use of JSON
objects to communicate with a provided server to exchange data about actions that were taken within the game.

Programmed a Maze in Java   *April 2023*
Using Kruskal's algorithm for minimum spanning trees,
constructed a maze that could be solved through either Breadth-first Search or Depth-first Search.
Displayed the maze to users and allowed a choice of algorithm to solve the maze.

Programmed a CPU   *December 2021*
Created Logic blocks such as an ALU, Register File, and Data Memory in Verilog
Combined each block in a top file and encoded custom 16 bit MIPS assembly
instructions in machine code to be ran on the computer.
Ran on a PYNQ-Z2 FPGA board through the Vivado software

Production Experience

NUStage Technical Coordinator Boston, MA   *July 2022 - April 2023*
Led the coordination of design and organization of all technical aspects of the student group. Worked with a team of
directors and designers to align ideas and create their vision on the stage.

NUStage Spring Technical Director Boston, MA   *January 2022 - July 2022*
Organized weekly build meetings. Supervised and trained a team of students constructing set pieces for all
productions.