

Kimberly Bytyci

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Education

EXPECTED GRADUATION DATE: DECEMBER 2024 | THE CITY COLLEGE OF NEW YORK

Bachelor of Engineering in Electrical Engineering

Skills & Abilities

Programming Languages	C++, Python, Java, Swift, Assembly, Visual Basic for Applications (VBA)
Web Development	HTML, CSS, JavaScript
Design/Simulation/Modeling	Verilog, Inventor, Computer-Aided Drafting, Multisim, MATLAB
Microcontrollers/FPGAs	PIC, Arduino, Raspberry Pi, Nexys 3
Data Science	Machine Learning, Natural Language Processing
Other	Project Management, Adaptable, Creative, Self-Motivated, Critical Thinker, Detail-Oriented

Research & Projects

UNDERGRADUATE INDEPENDENT STUDY | CITY COLLEGE OF NEW YORK

Machine Learning to Predict the Progression of Alzheimer's Disease

- Developed and trained an artificial intelligence model in Python with TensorFlow to predict the progression of Alzheimer's Disease using genetic data from patients. Refined the code with faculty advisor.
- Implemented several linear regression models in addition to testing different architectures and training algorithms such as a genetic algorithm to find the optimal solution.
- Presented the research to students in a few undergraduate classes including an Introduction to Programming course and a more advanced Machine Learning and AI course.

SPEECH RECOGNITION ARTIFICIAL INTELLIGENCE

- Implemented a Convolutional Neural Network (CNN) using MATLAB to recognize words spoken into a microphone and added a translation functionality to the program, enabling a user to translate their speech to a language of their choosing.
- Trained the CNN using spectrograms generated from audio samples, optimizing the model for accurate speech analysis.

32-BIT RISC PROCESSOR DESIGN

- Designed a 32-bit single-cycle RISC processor using Verilog by creating module components, including an ALU (Arithmetic Logic Unit), control unit, instruction memory, and data memory.
- Conducted extensive simulation tests using tools such as ModelSim to validate the performance of the design and employed testbenches to identify and resolve issues, ensuring the functionality of all instructions in the instruction set.

WEBSITE DEVELOPMENT

- Created and designed a website using HTML and CSS and used GitHub to maintain version control while updating the code.
- Integrated responsive design principles, ensuring optimal functionality and a seamless user experience across various devices.

Experience

ENGINEERING INTERN | JACOBS ENGINEERING GROUP | MAY 2023 – AUGUST 2023

Five Stations Renewal on Flushing Line

- Reviewed and approved submittals from the contractor.
- Managed and overhauled the submittals' database, streamlining the document control process.
- Managed tracking the progress of submittals and compiled necessary information into dashboards via the development of VBA programs to be used by the construction manager for weekly progress meetings.

COMPUTER LAB ASSISTANT | CITY COLLEGE OF NEW YORK | JANUARY 2023 – MAY 2023

- On-site resource to individual students and groups accessing computer technology; helped familiarize students with software and orient students to the laboratory.
- Troubleshooted and diagnosed problems with computer equipment running both Windows and Linux OS's. Performed maintenance and repair on equipment, as necessary.
- Managed the lab and provided for the general cleanliness, safety, and security of the laboratory area.

ENGINEERING INTERN | JACOBS ENGINEERING GROUP | MAY 2022 – AUGUST 2022

East Side Access

- Assisted the tests of several systems in the field including Fire Alarm, HVAC, Power SCADA, Building Management System (BMS), and Security systems.
- Tracked the progress of testing and commissioning through various stages of the process.
- Monitored daily logs of manpower and compared against the budgeted quantities.

BARISTA/TRAINER | STARBUCKS | APRIL 2019 – PRESENT

- Delivered excellent customer service to customers and used active coaching to ensure all partners are following food safety procedures as well as drink recipes to provide premium quality products.
- Ensured health codes and safety standards are followed in order to maintain a high health score.
- Supervised and trained newly hired partners along with the manager, motivating and leading them.