EMILY LAKIC

SOFTWARE ENGINEER

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I am a software engineer associate at Lockheed Martin with a strong interest in data science and applications of linear algebra and vector calculus. This past summer I interned for NASA as a software engineer. Previously I have worked as a residential computing consultant and a computer science & mathematics instructor. I enjoy being challenged and learning something new with each project I take on. I am highly skilled in Python, C++, C, and Java, and have an understanding of JavaScript and Swift.

EDUCATION

Binghamton University, Bachelor of Science, Computer Science

Activities & Societies: HackBU, ACM, Society of Women Engineers

Years Attended: August 2016 - May 2020

SKILLS

Languages: C++, C, Swift, Java, Python, Javascript, CSS, HTML, Assembly

Software: Bootstrap, Git, Logisim, Xcode

EXPERIENCE

Software Engineer Associate - Lockheed Martin, *Owego, NY* **June 2020 - Present**

I currently work as a software engineer at Lockheed Martin applying software engineering skills through Agile concepts and Git source control using Python, C++, C, Ada, Perl, and Git.

Software Engineer Intern - NASA - National Aeronautics and Space Administration, *Owego, NY* **June 2019 - August 2019**

Worked as a software lead among an electrical and mechanical lead in a team of three to deliver a project for the New York Space Grant Consortium to help inspire, engage, and educate students in STEM disciplines. Wrote C++ code to explicitly allow synchronous communication between an HC-06 wireless bluetooth module, infrared sensors, and radio frequency transmitters and receivers.

Resident Computer Consultant - Binghamton University, *Binghamton, NY* **June 2017 - May 2019**

Worked with a student-based Computer Repair and IT service run on campus to help fellow students diagnose problems with their technological devices.

Computer Science Instructor - Brain Boost Learning, *Greenwich, CT* **July 2017 - August 2017**

Worked as an instructor at a company that specializes in STEM programs such as math, computers, and robotics for children in elementary school to high school.

PROJECTS

Mission Combat Go - Lockheed Martin & NASA Internship Project **June 2019 - August 2019**

MCG aims to engage students in electrical, mechanical, and software design through the implementation of different sensors electrically wired and communicating with one another through code on a mechanically-built Go-Kart. I used C++ to establish a bluetooth to RF connection to enable two servos to drop a defense mechanism on the Kart with the push of a button on an Android application. A small LCD screen mounted on the Kart continuously updated the number of times an IR connection was made between IR sensors located on the Kart and IR poles set up sporadically around the Kart. Upon establishing a connection, the Kart was programmed to stop for a few seconds, disabling the driver's ability to move. A turret containing a camera mounted atop the Kart fed a live recording of the course on an LCD screen at the ground station, and was controlled by a thumb joystick through an RF transceiver/receiver connection.

Monitoring Home Security Through License Plate Reading and Image Recognition on an Android Application Utilizing Wireless Sensor Networks - Binghamton University **February 2020 - May 2020**

Home automation has become a convenience that homeowners enjoy and benefits society as a crucial tool in home security. We aim to design a low-cost, versatile automated garage door opener that capitalizes on both ease-of-use and home security. Our project design follows that of a simulation as we demonstrate an easily implementable solution to garage automation, remotely controllable by any Android smartphone. Efficiency and effectiveness are ensured as a simulation supports repeated application and immediate, contextual feedback, let alone permits users to practice through trial and error and experience how the system will respond to their actions and decisions in a cost-efficient manner. The Raspberry Pi is a harbinger for prowess of the Internet of Things, from its effectiveness in use with a number of sensors, to its low-cost functionality serving the needs of users quite adequately. Our team used the PIR Motion Sensor, Servo Motor Module, and Raspberry Pi Camera v6 Module to provide an accurate and reliable simulation for our project. Each sensor and module proved to be a strong solution to the proposed simulation as they worked synonymously through system testing to communicate with the database and aid in accurate data transfer between devices.