Moushume K. Hai

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Education

Boston University Graduation: Aug 2022
Master of Science, Software Development

Kean University Graduation: May 2020
Bachelor of Science, Computer Science

Technical Skills

***Programming Languages*:** Java, Python, C++.
Scripting Languages: Shell, Bash.
Developmental Tools: Eclipse, ClearQuest, ClearCase Project Explorer, xterm, Putty, Google Test, GNU Project Debugger (gdb).
Databases: MySQL.
Platforms and Frameworks: Windows, Linux, Ubuntu, CentOS.

Work Experience

L3Harris Technologies Clifton, NJ January 2022 – Present
Senior Software Engineer
- Space and Airborne Systems

Lockheed Martin Corporation Moorestown, NJ November 2020 - Present
Associate Software Engineer, AMES
- Collaborated with cross-functional development team members to analyze potential system solutions based on evolving client requirements.
- Worked closely with other development teams and infrastructure specialists to deliver high-availability C++ solutions for mission-critical applications.
- Debugged C++ legacy code and located root causes of the problems using gdb and reviewed configuration files and logs.
- Collaborated with developers and product owners to stay current on product features and intended functionality.
- Developed flowcharts and diagrams to describe and layout logical operational steps using pseudocode.
- Identified and resolved problems through research and analysis.

Projects

Kean University Union, NJ June 2020 – August 2020
Undergraduate Researcher, Digital Image Processing
- Collected images from using photographic devices and an Arduino based Lidar-Lite scanner.
- Applied algorithms using Python Imaging Library (PIL), OpenCV, and Sci-kit packages for image enhancements using the acquired images via image sensors.
- Used MATLAB to create Histograms and show Noise Reduction using C++.
- Analyzed the original images with the processed images using segmentation and showing intermediate results by changing the intermediate floating-point values between 1.0 and 45.0 to show differentiation.

Kean University Union, NJ January 2020 – May 2020
Undergraduate Researcher, Investigation of Deep Learning for Intrusion Detection
- Assisted with developing long short-term memory (LSTM) networks in Python, a scripting language using Keras to address a time-series prediction problem.
- Created model representations using Matplotlib in Jupyter to show and detect malicious inconsistencies through validating the predicted sequences and the actual sequences with deep learning approaches.
- Achieved 93.5% accuracy in detecting malicious deviations in sequenced data versus the real data by converting source code file formats and increasing the length of time for a more substantial number of packet transmissions.

Kean University Union, NJ June 2020 – August 2020
Undergraduate Researcher, Digital Image Processing
- Worked with a DJI Mavic Pro to collect aerial photos/videos to gather real-time flight-related data – such as GPS coordinates, temperature, pressure, humidity, altitude, speed, and velocity.
- Developed an automated flightpath leveraging JavaScript and DJI GO APP for the drone to record real-time data when traveling to different locations.
- Developed automation solutions leveraging shell and JavaScript to increase operational efficiency.
- Imported the data into an excel sheet and converted it to a .CSV extension.
- Created a local database using MySQL workbench and imported the .CSV file for analysis of the GPS coordinates.