

Mohammed Mowla

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EDUCATION

Stockton University

Bachelor of Science in Computer Science, Minor in Mathematics

Galloway, NJ

Aug. 2020 – May 2024

EXPERIENCE

Federal Aviation Administration

Student Intern - A.M.M.S.

June 2024 – Present

Egg Harbor Township, NJ

- Developed a regression test suite for an iOS application using Appium and Python
- Lead of development of organizational Wiki site using Confluence and introduced Jira and BitBucket integration
- Research LLM's and their impact on speeding up Test and Evaluation (T&E) processes throughout the FAA

Federal Aviation Administration

Student Intern - A.M.M.S.

June 2023 – Aug. 2023

Egg Harbor Township, NJ

- Took on leadership in implementing Appium automation within a compact test team for an in-house iOS application using Java, concurrently documenting manual testing efforts across web and iOS applications.
- Assumed a co-leadership role in a cohort project, providing guidance to team members in understanding and proficiently utilizing virtualized instances of Simulated Driver Radar Recorder.
- Utilized a virtualized Ubuntu instance via SSH to install, use, and gain a comprehensive understanding of the applications of SDRR and its ecosystem.

Lake Fred Research Project

Stockton University - Math Research

Jan. 2023 – Nov. 2023

Galloway, NJ

- Gathered geospatial data from Lake Fred at Stockton University and applied the SciPy library, to perform a Convex Hull algorithm for Delaunay Triangulation to extract triangulation information
- Employed Blender Python API to transform 2K+ points into a triangulation of a 3D model of the lake
- 3D Printed the lake model for better visualization and understanding of the lake bed
- Developed a website incorporating Three.js, to visually depict and enable interaction with the lake model.
- Presented to Math Seminar along on the methods used to approximate the lake

PROJECTS

DCGAN Animal Image Generation | *PyTorch, Python, Computer Vision*

April 2024 – May 2024

- Preprocessed images from both Animal-10N and Kaggle Cats and Dog datasets for image generation
- Developed and trained several DCGAN models on both cats and hamsters using Batch Normalization for stability, ReLU for activation functions, and Binary Cross Entropy Loss for the loss function
- Significant results achieved using the Kaggle dataset cats for 1K epochs, 12.5K images running for 140+ minutes
- Shortcomings came from broad image diversity leading to miscellaneous noise in generated images

Desktop Inventory Application | *Java, Maven, Git, MySQL, JavaFX MVC, FXML*

May 2018 – May 2020

- Streamlined inventory management for a small South Jersey business by developing a desktop application using JavaFX, FXML, Scene Builder, JavaMail API resulting in a more efficient process.
- Implemented CRUD functions for a MySQL database, that validated users to seamlessly manage inventory, enhance security, and reducing manual errors by a significant number
- Incorporated sortable tables for all tables through filters such as but not limited to product category, expiration and quantity to improve user experience.
- Collaborated with 5 team members through Git to seamlessly share project updates

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, C#, HTML/CSS, SQL (MySQL), , PHP

Frameworks: Node.js, TailWindCSS, Svelte, WAMP, JUnit,

Developer Tools: Visual Studio, IntelliJ, PyCharm, Git, VS Code, Eclipse

Libraries: Three.js, p5.js, NumPy, PyTorch, Matplotlib, JFreeCharts