ILIYAS ALABDULAAL

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EDUCATION

Bachelor of Science in Computer Science, Certificate in Data Science **Anticipated: May 2024**
University of Wisconsin-Madison (UW-Madison), GPA: 3.98

- Relevant Coursework: *Data structures, Calculus I/II, Discrete Math, Machine Organization, Operating Systems, Linear Algebra, Artificial Intelligence, Algorithms, Statistics, Networks, Information Security*

Recipient – *KAUST Gifted Student Program (KGSP) Scholarship* **June 2020 – Present**

- Prestigious scholarship selecting 100 Saudi students annually to study STEM in the US and graduate studies at KAUST

EXPERIENCE

Full Stack Software Engineer Intern
Aramco, Detroit Research Center **May 2023 – August 2023**

- Developed a full-stack web application using React, Django, and Node.js, automating manual processes, including distillation curve plotting and fuel property comparisons, streamlining workflows, and improving efficiency
- Orchestrated a seamless and efficient data exchange pipeline utilizing Axios and the Django REST Framework, enabling smooth communication between frontend and backend components through RESTful APIs
- Implemented interactive data visualization with Chart.js and designed an intuitive frontend UI leveraging Material UI (MUI), elevating user engagement and data-driven insights, and fostering a user-centric design approach
- Collaboratively integrated a deep neural network model into the backend, partnering closely with another team member to enable precise prediction of distillation curves based on fuel chemical composition, significantly advancing data analysis capabilities
- Executed the translation of a MATLAB script to Python, optimizing backend processes and mitigating licensing expenses, resulting in substantial cost savings for the company's software operations

Undergraduate Research Assistant
Vertical Research Group, Prof. Karu Sankaralingam **January 2023 – May 2023**

- Coded and trained a quantized LeNeT-5 Convolutional Neural Network model with 98% accuracy in Python to use its weights in a LeNet-5 model in C to compartmentalize the model and run it on RISC-V compiler architecture
- Analyzed the behavior of C programs with odd memory accesses when run on RISC-V compiler architecture

Front End Software Engineer Intern
Dow Inc., KAUST **June 2022 – August 2022**

- Developed the widely used Cool Roof Energy Calculator web application, leveraging JavaScript, HTML5, and CSS3 to enhance the user experience and provide valuable energy efficiency insights
- Utilized marketing call notes to construct a robust text-data manipulation, analytics, and visualization pipeline using Power BI and SAP HANA, creating an interactive dashboard that empowered informed decision-making
- Built and tested multiple features for the second upgraded version of an employee recognition award app within the Power Apps platform to foster a culture of appreciation

PROJECTS

Distributed Network Filesystem **December 2022**

- Deployed a client library in C to manage multiple UNIX filesystem images in a network, working in a team
- Devised a filesystem image editing program that runs on a server and is natively connected to the client library functions by sending and receiving packets through the UDP network protocol

Airport Path Finder **November 2021**

- Coded the frontend of an app through JavaFX that gives the user the shortest flight route from one US airport to another, as well as the price and total duration, while collaborating and leading 3 other team members
- The backend data structure was a self-implemented shortest path algorithm (Dijkstra's algorithm)

SKILLS

Technical: React**,** Node.js, Django, RESTful APIs, Material-UI, Chart.js, PyTorch, Scikit-learn, Figma**,** Java, Python C, Git, SQL, HTML5, JavaScript, R, Linux/Unix, Bash, HPC, Power BI, Power Apps
Languages: Fluent in English, Japanese, and Arabic