

ILIYAS ALABDULAAL

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EDUCATION

Master of Science in Computer Science

Anticipated: December 2025

King Abdullah University of Science and Technology (KAUST)

Bachelor of Science in Computer Science, Minor in Data Science

May 2024

University of Wisconsin-Madison (UW-Madison), GPA: 3.99/4.0 (Graduated with Distinction)

- Relevant Coursework: Data Structures, Systems Programming, Operating Systems, Artificial Intelligence, Algorithms, Statistics, Networks, Information Security, Big Data Systems, Data Sci Modeling & Programming

SKILLS

Programming Languages: Python, C, Java, SQL, CQL, HTML5, CSS, JavaScript, R

Dev Tools: Git, Docker, React/Express/Node.js, Django, Google Cloud, Linux, JIRA, REST APIs, Selenium, Flask

Data Science & Machine Learning: PyTorch, NumPy, XGBoost, Hugging Face, Pandas, Matplotlib, Scikit-learn, SciPy

Databases & Big Data: MySQL, Spark, Cassandra, Kafka, BigQuery, PyArrow, Hadoop

Spoken Languages: Fluent in English, Japanese, and Arabic

EXPERIENCE

Data Scientist – Sirdab (YC W23)

June 2024 – Present

- Working on data science, infrastructure, and engineering projects

Software Engineer (CS Capstone Project) – PBS Wisconsin

January 2024 – May 2024

- Designed, developed, and deployed a captioning file to transcript transformer utilizing React, Express, Node.js, and CSS, automating 90% of PBS content managers' workflows
- Managed project's Agile software development with 4 other team members through JIRA, Scrum, and Kanban
- Designed UI prototype using Figma and interviewed 10+ potential users to incorporate feedback into development

Software Engineer Intern – Aramco Americas

May 2023 – August 2023

- Led the design and deployment of a key RESTful full-stack application using React with Node.js and Python with Django which automated manual processes like distillation curve plotting and fuel property comparisons, enhancing research scientists' data analysis and machine learning workflows efficiencies up to 80%
- Collaboratively integrated a deep neural network in Python and Node.js, achieving an average of 98% accuracy in predicting distillation curves from chemical fuel compositions
- Built multiple RESTful API endpoints using Axios and Django REST Framework, facilitating seamless communication between the server the 100 client researchers
- Optimized user experience by implementing interactive data visualizations using Chart.js and designed a user-centric frontend UI with Material UI

Undergraduate Researcher – Vertical Research Group

January 2023 – May 2023

- Coded and trained a quantized convolutional neural network in Python, achieving 98% accuracy. Utilized the model's quantized weights in a C-based LeNet-5 implementation to optimize it for the RISC-V compiler architecture
- Analyzed the behavior of C programs with odd memory accesses when run on RISC-Vs compiler architecture

Software Engineer Intern – Dow Chemical Inc.

June 2022 – August 2022

- Developed the [Cool Roof Energy Calculator](#) web application, using JavaScript, HTML5, and CSS3, providing valuable energy efficiency and total cost insights for B2B Dow customers
- Utilized marketing call notes to construct a text-data manipulation, analysis, and visualization pipeline using Power BI and SAP HANA, which automated manual tasks and reduced analysis time from 6 hours to 5 minutes
- Built and tested multiple features for the next-gen version of an internal application on Power Apps

PROJECTS

Network Intrusion Detection System (Python, PyTorch, NumPy, Docker)

November 2023

- Engineered a PyTorch-based multiclass classification neural network for accurate identification of diverse cyber threats in a containerized Docker environment using network traffic data
- Orchestrated data processing, model training, and validation loops, achieving 96% multi-class accuracy