

Aahad Abubaker

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EDUCATION

DePaul University

Bachelor of Science in Computer Science (Minor, Data Science) | GPA: 3.70

May 2025

Chicago, IL

EXPERIENCE

IT Specialist Intern

Dec. 2023 – Present

Premier Early Childhood Education Partners

Chicago, IL

- Responded to IT support tickets, troubleshooting end-user problems with iPadOS and Windows, and handled configuration and installation issues with MS Office
- Performed hardware repairs for company-issued laptop and desktop and coordinated replacement parts, ensuring smooth operations

Undergraduate Teaching Assistant

Jan. 2023 – Present

DePaul University

Chicago, IL

- Graded assignments for a diverse range of computer science and data science courses, covering various programming languages, including Python, MySQL, C, and R
- Collaborated closely with course instructors and professors to maintain consistency with course objectives and grading standards

Systems Research Intern - REU

May 2023 – Aug. 2023

University of Chicago & Illinois Institute of Technology

Chicago, IL

- Conducted in-depth benchmarking of hashing functions, exploring the impact of multi-threading and multiprocessing using openMPI and GNU Parallel
- Integrated an optimized hash function into a Proof of Space (PoS) implementation using C and C++
- Demonstrated remarkable plot generation performance, achieving a 3000% throughput increase compared to CHIA's BladeBit, a popular PoS solution
- Presented a comprehensive poster as the lead author at the SuperComputing '23 conference in Denver

Undergraduate Researcher

Jan. 2022 – Dec. 2022

DePaul University

Chicago, IL

- Applied computer vision techniques on a dataset of biofilm images, utilizing image thresholding and edge detection, to accurately outline the boundaries of biofilm segments and qualitatively examine biofilm cellular concentration
- Presented research posters and gave oral talks at the Chicago Area Undergraduate Research Symposium, DePaul Showcases, and the BIG EAST Undergraduate Research Poster Symposium in NYC

PROJECTS

E-Commerce Cuisine Web App | *Node.js, Express.js, MariaDB*

[GitHub](#) 

- Developed a full-featured RESTFUL e-commerce website using implementing user authorization and secure authentication mechanisms to ensure data privacy and user security
- Integrated Express.js in a Node.js environment to establish a responsive and scalable server-side framework, enhancing website performance and user experience
- Utilized MySQL for robust database management, and deployed onto an AWS EC2 instance

Credit Card Fraud Detection | *Python, pandas, NumPy, Scikit-learn, Seaborn*

[GitHub](#) 

- Designed a comprehensive machine learning solution to detect fraudulent credit card transactions, experimenting with multiple algorithms including Random Forest, SVM, Neural Networks, and XGBoost
- Addressed challenges of data imbalance using techniques such as SMOTE and undersampling to enhance model accuracy and reliability
- Achieved optimal fraud detection performance with XGBoost, yielding a 0.96 accuracy and 1.00 AUC, benefiting from built-in regularization to prevent overfitting

TECHNICAL SKILLS

Languages: Java, Python, C, C++, MySQL, Rust, HTML/CSS, JavaScript

Developer Tools and Platforms: Git, Linux, ChameleonCloud

Libraries: pandas, NumPy, Matplotlib, OpenCV, Scikit-learn, Tensorflow, Apache Spark, node.js