Elyas Belkhir

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EDUCATION

The University of Texas at Dallas — Richardson, TX
Bachelor of Science in Computer Science — Expected Graduation: Dec 2024
Coursework: Data Structures & Algorithms, Operating Systems, Database Systems, Distributed Systems, Deep Learning, Artificial Intelligence, Compilers, Systems Programming, Linear Algebra

EXPERIENCE

Paycom — May 2024 – Aug 2024
Software Developer Intern — Irving, TX
- Developed a machine learning model to flag high-risk merge requests, reducing environment crashes by 20%
- Automated the data processing pipeline to handle over 400,000 records from GitLab and Jira, ensuring seamless data flow and real-time model/dashboard updates
- Built a full-stack dashboard using React, MySQL, C#, and Python, enabling managers to monitor merge request revert patterns across software modules and teams, increasing workflow efficiency by 30%

Nebula Labs — Sep 2023 – May 2024
API Developer — Richardson, TX
- Contributed to development of a robust API backend for university data management with a team of 15+ contributors integrating 6 major university data systems using Golang, Gin, and MongoDB
- Executed MongoDB queries and designed middleware in Gin to for simpler and faster retrievals by 30%

iCode — Sep 2023 – May 2024
Robotics Instructor — Wylie, TX
- Led a robotics curriculum for a team of 5+ students, focusing on hands-on programming and robotics challenges
- Mentored students in building and programming VEX robots using C++, integrating motors and sensors to develop functional and autonomous systems

PROJECTS

Anomaly Detection Research Project | *Python, Pandas, Numpy, OpenCV, PyTorch*
- Implemented and compared machine learning models (RNN with LSTM, 3D CNN) for real-time anomaly detection using Python, OpenCV, and PyTorch, achieving up to 76.15% accuracy
- Developed a data preprocessing pipeline with ResNet50 for feature extraction, optimizing video frame processing

Facility Pulse | *Swift, Python, Firebase, Flask*
- Created a Swift iOS app with a team of 4, featuring widgets that monitor the health of building systems
- Spearheaded the creation of a random forest classifier model capable of predicting a facility system's next service time
- Secured 3rd place in the CBRE sponsor challenge, outperforming 20+ competing projects

Video Game Library | *Python, Django, JavaScript, HTML, CSS*
- Designed a web application that enables users to manage a personalized game library with ratings and play history
- Built a REST API using Django capable of handling GET, POST, and DELETE requests

ACTIVITIES AND AWARDS

Algorithmic Computing Club | *President*
- Organized interactive sessions for students to master algorithmic challenges and engage in competitive problem-solving

Academic Excellence Scholar
- Earned $52,000 scholarship for academic performance

TECHNICAL SKILLS

Languages: Java, Python, C/C++, C#, Go, JavaScript/TypeScript, SQL, HTML/CSS, PHP
Libraries & Frameworks: Flask, RabbitMQ, Node, .NET, Gin, React, PostgreSQL, MySQL, Hadoop, Kafka, Kubernetes, Redis
Developer Tools: Git, Docker, GCP, VS Code, Firebase, IntelliJ, Bitbucket, Linux/Unix, AWS, Azure