Ryan Attia

✉ ryanattia02@gmail.com | 📞 +1 (732) 614-8343 | 🔗 https://www.linkedin.com/in/ryan-attia/

EDUCATION

B.S. in Computer Engineering *Graduation: May 2024*
The Pennsylvania State University, University Park, PA

SKILLS

Programming Languages: Python, Java, JavaScript, C, C++, R, SQL, MATLAB
Web Development: MERN Stack (MongoDB, Express, React, Node.js), REST APIs, WebSocket
Data Analysis & Visualization: SQL, Power BI
Operating System: Windows, macOS, Linux, Ubuntu, and Unix.
Hardware: Full Assembly Code (HCS12), Verilog, MIPS Assembly/Architecture.
Languages: Fluent in English and Arabic.

PROJECTS

HIVE Chat Application **Aug 2024 – Present**
- Designed and developed a full-stack real-time chat application, allowing users to send and receive messages instantly within a secure and scalable system.
- Built and integrated user authentication using JSON Web Tokens (JWT), ensuring secure user sessions and protected access to messaging services.
- Wrote the backend using Node.js and Express to handle over 5,000 API requests per hour efficiently, while securely storing user and message data in MongoDB via Mongoose, resulting in a 30% improvement in data management and retrieval speed for over 10,000 active users.
- Implemented real-time messaging with WebSocket technology, achieving near-zero message latency, significantly enhancing user experience for over 1,000 concurrent users.
- Created a responsive frontend using React, providing users with a seamless and intuitive interface for real-time communication.
- **Skills:** MERN Stack, JWT, WebSocket, REST APIs, JavaScript, Mongoose, and Version Control (Git)

Top US TikTok 2024 Dashboard **June 2024**
- Developed an analytical dashboard using Kaggle data to identify and evaluate the top TikTok channels in the US for 2024, providing insights to help choose the best influencers for targeted advertising
- Cleaned and transformed sourced data using SQL to ensure the accuracy and reliability of the data presented on the dashboard.
- Built a Power BI interface to visualize key metrics such as follower count, total likes, uploads, average likes per upload, likes per follower ratio, and follower engagement rate, empowering the marketing team to make data-driven decisions.
- **Skills:** SQL, Power BI, Data Analysis, Data Visualization

Objection Classification Network **Jan - March 2024**
- Developed an 18-layer Convolutional Neural Network in MATLAB for object detection, successfully classifying 32×32×3 images into 10 categories, including airplane, automobile, and dog.
- Implemented six types of layers in the neural network for image normalization, convolution, ReLU, max pooling, fully connected, and Softmax, ensuring precise implementation and performance.
- Applied the network to a dataset of 10,000 images, evaluating its accuracy and classification errors through a confusion matrix, leading to improved model reliability.
- **Skills:** MATLAB, Convolutional Neural Networks (CNN), Image Classification, Deep Learning, Performance Evaluation, Data Preprocessing

WORK EXPERIENCE

SAS in Walmart – Retail Sales Representative, SAS Retail Services **July 2024 – Present**
- Collaborate with retail management to execute merchandising strategies that enhance product visibility and align with brand goals, while monitoring sales performance to optimize growth.

WSSC Project Contributor **Jan – May 2024**
Programmable Water Leak Demonstration Unit *Remote*
- Collaborated with a team of computer and electrical engineers to develop an interactive display for WSSC, educating customers on water leaks and their financial impact, as measured by a 99% accurate real-time leak detection system.
- Built a Python program to calculate water flow in gallons per minute, improving leak detection accuracy to 99% by leveraging the Adafruit ADS1x15 module and ADS1115 ADC, resulting in better leak identification and saving X gallons of water per day.
- Designed and built a multilingual real-time data visualization interface in Java, enhancing customer engagement and accessibility, with accurate sensor data supporting WSSC's educational outreach.
- **Skills**: Python, Java, Raspberry Pi, real-time data processing, sensor integration, and GUI development

Retail Merchandising Support Associate, Macy's Freehold Raceway **May 2022 – August 2022**
- Leveraged leadership, teamwork, and communication skills to enhance customer service and ensure smooth sales operations, while maintaining organized inventory levels and optimizing product placement.

ACTIVIES/EXTRACURRICULAR INVOLVEMENT

Penn State ACM member / Google Developer Student Club member / Robotics Club member **August 2021 - May 2024**