

OMAR SAED YOUNIS

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EDUCATION

California State University, Fullerton

Master of Science in Computer Science

Fullerton, CA

Graduation Date: May 2026

Worcester Polytechnic Institute

Bachelor of Science in Mechanical Engineering, Minor in Aerospace Engineering

Worcester, MA

Aug. 2012 – May 2016

EXPERIENCE

Software Engineer Intern

May 2024 – Aug. 2024

Qualcomm – Internship

San Diego, CA

- Responsible for gathering requirements and industrializing ETL pipelines on AWS from key stakeholders.
- Created ETL pipelines to process 1 million data points per minute for ML teams, to utilize and analyze Big Data.
- Improved features development and testing by 40% by implementing a logging, monitoring, and alerting solution on ETL pipelines.

Instructor/Teaching Associate – Computer Science Department

Jan. 2024 – May 2024

California State University, Fullerton

Fullerton, CA

- Instructed undergraduate course for Object-Oriented Programming in C++.

Software Engineer Intern

Aug. 2022 – Nov. 2022

Elemeno AI – Internship

Remote

- Utilized SQL to manage and analyze Big Data, performed exploratory data analysis (EDA) and developed strategic roadmaps to create and deploy client-specific neural models on Google Cloud.
- Enhanced predictive accuracy of package delivery times by 25% by conducting comprehensive data analysis, designing efficient pipelines for tabular data, and successfully training a feed-forward neural network.

Lead Mechanical Engineer – R&D Department

Feb. 2019 – May 2021

D&K Engineering

San Diego, CA

- Led a team of 20 in the successful development of ecoATMs earning a \$1 million contract extension.
- Enhanced in-house efficiency by 50% by developing a diverse range of Python-based productivity tools.
- Accelerated project timelines by 4 times by providing efficient CAD, design, and drawing support with SolidWorks.

Member – Flotilla Staff Officer

May 2015 – Present

United States Coast Guard Auxiliary

San Diego, CA

- Conducted training, and participated in a number of successful search and rescue operations.
- Reduced time from a week to 3 minutes by developing a productivity tool for accessing and summarizing training data for Coast Guard pilots.
- Pioneered and established an efficient inventory system and database within a team to enhance the Coast Guard's helicopter maintenance operations, resulting in an impressive 85% reduction in search time; the system is currently in operation at Coast Guard Air Station San Diego.

PROJECTS

Image Watermark Remover with PyTorch | PyTorch, API, requests, Pix2Pix, Machine Learning

Jun. 2022

- Implemented a Pix2Pix model to remove watermarks from images using PyTorch. Created a program to download, modify and load images to train the model. Trained the model to remove the watermarked images.

Cycloidal Drive App | Python, tkinter, Git, numpy, matplotlib

Jan. 2022

- Developed an app to help design and preview cycloidal drive designs, currently in active use; based on a paper I published on the SolidWorks Educational website and referenced in multiple YouTube videos.

American Sign Language Letter Detector App | Python, streamlit, YOLOv5, Pandas

Sep. 2021 – Oct. 2021

- Created a lightweight app, in Python, that detects ASL letters from an image or video for the purpose of helping students practice the various hand positions for the letters.
- Uses a retrained model built upon the YOLOv5 framework.

TECHNICAL SKILLS

Python, C++/C, Java, Javascript, Swift, AWS, GCloud, Apache Spark, OpenCV, FastAPI, Node.js, React, Amazon DynamoDB, MySQL, Keras, PyTorch, Scikit-Learn, Scipy, TensorFlow, Docker