

# Rayyan Jamil

U.S Citizen | Security Clearance: Secret | Orlando, FL

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## EDUCATION

### University of Central Florida

Orlando, Florida

B.S. in Computer Science

Expected Graduation: December 2025 (3.5 GPA)

- Orgs: UCF Badminton Team Treasurer, Pakistani Student Association President, Eli<sup>2</sup> Leaders Committee
- Relevant Courses: Passed FE Exam, Algorithms and Data Structures, Discrete 2, Calculus 2, Computer Logic, Linear Algebra, Object Oriented Programming, Compilers, Machine Learning, AI, Cyber Defense, Database and Systems Administration, Junior Design (Full Stack)

## PROFESSIONAL EXPERIENCE

### Leidos

Orlando, Florida

Software Engineering Intern

June 2024 – Present

- Integrated a Vision-Language Model (VLM) and Retrieval Augmented Generation (RAG) agents into an Agentic AI framework for emergency response incorporating NVIDIA NIM's, LLM's, Langchain, transformers, and embedding/reranker models.
- Configured a Linux server environment, hosting Team Awareness Kit (TAK) and Extensible Messaging and Presence Protocol (XMPP) servers, achieving high uptime of critical services using Docker orchestration on Linux virtual machine infrastructure.
- Developed custom agent tools for external communication with Unreal Engine blueprints and designed RESTful services within Unreal Engine using C++, Crow, and Python REST to enable seamless data exchange and real-time interoperability.

### University of Central Florida Research

Orlando, Florida

Undergraduate Research Assistant

May 2024 – August 2024

- Refined image segmentation algorithms in Python using OpenCV and TensorFlow, improving accuracy in solar panel degradation assessment.
- Devised Python scripts to automate data extraction from the National Solar Radiation Database using zip codes, decreasing manual data entry and accelerating solar panel degradation analysis workflows.

### University of Central Florida IT

Orlando, Florida

IT Support Engineer

November 2022 – June 2024

- Utilized ServiceNow and Active Directory, to manage faculty equipment and drive resolution via workflow management; communicated with over 100 Executive University staff to troubleshoot campus hardware and software including Windows, MacOS, iPadOS, and conference room technology.

### Kumon Educational Network

Viera, Florida

Student Instructor

November 2021 – May 2022

- Developed personalized lesson plans for 10+ students based on diagnostic assessments, resulting in an average grade improvement of 1.5 letter grades within a single semester.

## PROJECTS/SKILLS

### Image Recognition Neural Network (Python)

- Enhanced image segmentation model using Python, Pandas, Scikit, Numpy, Keras, and TensorFlow to classify forms of transportation; improved accuracy from 61% to 73% using dropout regularization techniques and VGG-based architecture.

### Event Mosaic (MERN)

- Engineered a MERN (MongoDB, Express.js, React.js, Node.js) stack web app that uses AI/LLM to extract and display events from scraped Instagram captions for followed organizations.
- Deployed on DigitalOcean with a CI/CD pipeline on GitHub actions for automated integrations.
- Led a team of five engineers using Jira, streamlining task management and sprint planning.

### MIPS Processor (C)

- Programmed a MIPS processor simulator in C on Unix, implementing a single-cycle data path to execute machine code at 1 IPC for arithmetic, logic, data transfer, and branching operations.

### Aviation Design Challenge (American Institute of Aeronautics and Astronautics)

- Designed an RC plane. Engineered in SolidWorks and XFLR5 to design the structure and simulate flight performance. Placed 2<sup>nd</sup> in the Spring 2023 Aviation Design Showcase.