

DANIEL SILVA

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EDUCATION

University of Central Florida

Orlando, FL

Master of Science in Computer Science

Expected June 2021

- Focus in Machine Learning, Computer Vision and Robotics

Bachelor of Science in Computer Science | Minor in Statistics

Expected June 2020

- Major GPA: 3.96 / 4.00; Cumulative GPA: 3.92 / 4.00
- Relevant Coursework: Artificial Intelligence, Computer Vision, Data Structures & Algorithms, Computer Architecture, Systems Software, Statistical Methods, Linear Algebra, Multivariate Calculus, Discrete Mathematics

PROFESSIONAL EXPERIENCE

National Aeronautics and Space Administration (NASA)

Orlando, FL

Software Engineering & Robotics | Senior Capstone Project

September 2019 – Current

- Working in collaboration with Kennedy Space Center's Swamp Works team and the Florida Space Institute (FSI) to develop the EZ-RASSOR, a modular version of NASA's autonomous regolith mining robot ([RASSOR](#))
- Implementing an ROS navigation stack to the [open-sourced](#) EZ-RASSOR system to improve autonomous functionality

University of Central Florida

Orlando, FL

Undergraduate Researcher | Center for Research in Computer Vision

August 2019 - Current

- Currently researching simultaneous localization and mapping (SLAM) techniques for LWIR video and autonomous ground combat vehicles under the supervision of Dr. Mubarak Shah, partnered with UCF's Optics and Photonics Lab (CREOL)
- Focus in monocular depth estimation and vehicle ego-motion using unsupervised training methods for convolutional neural networks, as well as object detection and semantic segmentation

Avanade

New York, NY

Artificial Intelligence Intern | Received full-time offer

May 2019 - July 2019

- Developed a text and voice-enabled chatbot using Microsoft's Bot Framework for C# .NET
- Incorporated Microsoft's Language Understanding service (LUIS) to grant the agent conversational intelligence
- Utilized several RESTful APIs to integrate the bot with a client's CRM system, as well as services such as PowerBI, Azure Maps and Outlook

Lockheed Martin

Orlando, FL

Data Analytics Intern | College Work Experience Program

May 2017 - May 2019

- Built and maintained Tableau dashboards to enable informed decision making, track production metrics and visualize manufacturing defect data
- Queried and manipulated data from SQL Server and SAP HANA back-end databases
- Wrote custom macros in VBA to automate tedious manual reporting and data entry tasks
- Constructed and maintained Excel reports for Quality Engineering and Manufacturing teams

PROJECTS & LEADERSHIP

AI@UCF | Artificial Intelligence and Data Science Club

Orlando, FL

Coordinator

December 2018 - Current

- [AI@UCF](#) is forging a path to transform UCF into a hotspot for researchers and engineers who are passionate about AI and Data Science
- Responsible for organizing and leading workshops on topics such as computer vision, neural networks and data analytics

Facial Classification Project

Orlando, FL

Developer

June 2019 - July 2019

- Created a 2-stage computer vision [web application](#) to predict the age, race and gender of individuals present in an image
- Achieved an average 85% accuracy using a Squeeze and Excitation Network, trained on VGGFace2 and UTKFace in PyTorch
- Applied heavy data augmentation and oversampling techniques to reduce learned biases from imbalanced datasets
- Back-end development done in Python (Flask) with front-end styling being accomplished using Bootstrap 4

SKILLS & INTERESTS

- Languages: Proficient in Python, SQL, C; previously used C#, Java, VBA
- Frameworks & Technologies: Experienced with PyTorch, NumPy, Pandas, ROS, Flask, Tableau, Git, Linux and MS Excel; Familiar with Keras, Scikit-learn, OpenCV

HONORS & AWARDS

- Received Presidents Honor Roll (4x) and Deans List (2x) awards for undergraduate academic performance
- University of Central Florida's Pegasus Gold Scholarship and Bright Futures Academic Scholarship – combined \$28,000