

# NASHIR JANMOHAMED

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## EDUCATION

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University of Central Florida, Computer Science *January 2021 - December 2022*  
Santa Monica College (SMC), Computer Science *September 2017 - June 2020*  
UCLA (Bachelor of Music), Ethnomusicology-Jazz Studies *July 2013 - June 2017*

## SELECTED WORK EXPERIENCE

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**NASA KSC - Machine Learning/Modeling and Control Intern** *June 2020 - December 2020*

- Built supervised learning architecture that learns system dynamics from operational data.
- Developed reinforcement learning policy to control physical system; in process of deploying policy.

**NASA GSFC - Software Engineer Intern (5 hrs/week)** *July 2020 - December 2020*

- Processing LiDAR data gathered by airborne instrument to facilitate ML for satellite system.

**NASA KSC - Robotics and Computer Vision Intern** *June 2019 - August 2019*

- Developed OpenCV system to track simulated agents & predict trajectory in real-time, enabling autonomous GNC that avoids collisions in dynamic environments.
- Wrote research proposal for multi-robotic system for In-Situ Resource Utilization for NASA call.

**NASA KSC - Software Engineer Intern** *January 2019 - May 2019*

- Improved test framework event processing utility, which eliminated more than 30 failing unit tests.
- Wrote script to parse JSON data from Jenkins server, creating CSV w/ unit test pass/fail history.

## PERSONAL PROJECTS

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**Discrete Math Algorithms Package (DMalgos)**

- Created open source python library to compute various discrete math results with interactive GUI.

**Camera Locking and Modular Positioning System (CLaMP)**

- Designed a camera attachment mechanism for NASA design competition. Design was selected as one of 24 to be tested at Johnson Space Center. More detail at [www.nashirj.com/quintessence](http://www.nashirj.com/quintessence).

## SKILLS AND TECHNOLOGIES

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Python, C/C++, Java, MATLAB, Simulink, bash, Rust, NumPy, scikit-learn, Keras, PyTorch, OpenCV, Pandas, Lasp, Git, GitHub, Jenkins, Arduino, Raspberry Pi, ROS, Unix/Linux

## VOLUNTEER/EXTRACURRICULAR EXPERIENCE

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**FIRST Robotics Competition - Mentor (Pink Team #233)** *Spring 2019*

**SMC Robotics Club - Operations Manager** *August 2019 - June 2020*

## AWARDS/ACHIEVEMENTS

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**Winner - SD Hacks “Best IoT that Incorporates Multiple Nodes”** *October 2019*

**Awardee - Mimi Melnick Double M Award for New Jazz Talent** *November 2017*

**Winner - Angel City Arts Young Artists Competition** *September 2016*