

# Michael Roa

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## EDUCATION

### University of Maryland

Bachelor of Science - Computer Science, Bachelor of Arts - History

Exp. Dec 2022

### Montgomery College

Associate of Science - Computer Science

May 2017

## WORK EXPERIENCE

### ServiceNow, Technical Writer Intern

May 2021 – Dec. 2021

*Staff Writer for various products and services in the ServiceNow catalog*

#### Responsibilities

- Created documentation for several upcoming ServiceNow products - Agent Chat, App Engine Studio, UI Builder & more.
- Gathered requirements for documentation by collaborating with product managers, engineers, and other stakeholders through active participation in the product development process.
- Translated highly technical concepts into user-centric language by utilizing technical background to gain deep understanding of product and humanities background to draft appropriate narratives.

#### Achievements

- Addressed over 50 document tasks including authoring new products, editing existing documentation and resolving customer feedback.
- Developed a custom-made program to improve monthly workflow reports for the management team.
- Developed an application using internal ServiceNow products to produce team agile reports, catching the eye of over 10 Project Managers.
- Partook in over 5 usability tests, highlighting user-cases and their possible feedback to our documentation.
- Identified several longstanding issues within documentation workflow and brought these issues for review to management.

### NASA, Guest Researcher, Swarmathon Handbook

May 2016 - May 2018

*Technical Manual Detailing Swarm Robotics Programming & Operation, Team Leader of Swarm Robotics Team*

#### Responsibilities

- Worked extensively in C++ and ROS environment to develop and deploy swarm robots.
- Developed localization, communication, and emergent behavior algorithms against a randomized environment with mock hazards and unknown goal distributions.
- Integrated techniques into the NASA codebase for the project and future competitions.

#### Achievements

- Created technical handbook teaching fundamental swarm robot programming techniques.
- Deconstructed several complex swarm robot search algorithms and real-world applications.
- Use of handbook led to a 40% larger retention rate for the program.

### NIST, Guest Researcher, G-Code Tool Report

Jan. 2017 – Aug. 2017

*Technical Report on Custom Developed Program, Primary Developer of Custom CAD Machine Analysis Tool*

#### Responsibilities

- Developed near real time data analysis toolset for the Smart Manufacturing Systems Test Bed.
- Wrote a written technical report to a team of highly specialized engineers overviewing projects accomplishments.
- Presented project results live, giving extensive overview of an otherwise deeply complex topic.

#### Achievements

- Programmed web-publishing capability, user-friendly GUI, and dynamic time warping techniques.
- Resulted in 100% decrease in execution time, 95% decrease in algorithmic runtime, while maintaining a 75% accuracy compared to original in-use algorithms.

## SKILLS

- Programming experience in Python, C#, C++, ROS library, C, Java, Javascript, Assembly, Ruby.
- Work experience with Git, CMS, SaaS, web development, usability testing and team-based writing.
- Specialized in content unification, accessibility, and documentation tone & language.
- Writing experience with technical manuals, historical thesis, and research reports.