Andrew Ondara

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EDUCATION

Rice University, Houston, TX
Bachelor of Science in Computer Science, Minor in Data Science *August 2021- May 2025*

- **Relevant Skills:** Python, Java, HTML5, CSS, JavaScript, C/C++, MySQL, AngularJS, Django, ROS, Drupal, Unix, Git, Data Processing, Data Modeling, Automation, Research, Microsoft Suite, Adaptability, Problem-Solving, Leadership
- **Relevant Coursework:** Reasoning about Algorithms (Python), Intro to Program Design (Java), Intro to Computer Systems (C/C++)
- **Scholarship/Awards:** Trustee Harvey Scholar, Sustaining Excellence in Research Scholar, Rice Investment Grant
- **Interests/Hobbies:** Machine Learning/Artificial Intelligence, Cloud computing, Data Science, Robotics; Basketball, Music

WORK EXPERIENCE

Hewlett Packard Enterprise, San Jose, CA
Software Engineering Intern *May 2023 - August 2023*

- Developed a robust web-based test automation framework in **Unix** using **Python**, **Django**, **HTML5**, **CSS**, and **AngularJS** to enable fast and seamless testing of the 3PAR storage system for root cause analysis (RCA) of customer-returned systems
- Implemented scalable test result storage system using **MySQL** database and integrated **Gen3** API, enabling efficient information sharing, collaborative analysis, and democratized access to large and complex datasets for optimization and problem-solving.

Robotics and Physical Interactions Lab, Houston, TX
Research Assistant *January 2023 - May 2023*

- Engaged in research and collaborated with a multidisciplinary team to develop innovative solutions to enhance the safety of human-robot interactions in diverse real-world environments
- Employed **Unix**, **Python**, and **ROS** (Robot Operating System) to utilize the simulation capabilities of the PyBullet API for designing and testing advanced algorithms, resulting in improved efficiency of robotic motion planning within dynamic environments

Rice International Research Support Office, Houston, TX
Web Developer *October 2022 - May 2023*

- Utilized **Drupal** and web development tools to develop web pages for Rice researchers and professors, facilitating the presentation of research information and promotion of findings to a wider audience.
- Collaborated closely with researchers to gather feedback and requirements, and implemented necessary modifications to existing web pages, ensuring concurrent news and updates were incorporated based on their feedback and the outcomes of meetings.

RELEVANT PROJECTS

- **Real-Time Online Re-Planning for Grasping Under Clutter and Uncertainty:** Implemented a real-time robotic navigation system in **PyBullet** using Physics-Based Optimization for dynamic obstacle avoidance and trajectory adaptation
  - Created a Linux-based simulation platform to demonstrate the robot's adaptive trajectory, improving its speed and accuracy.
- **Part-of-Speech(PoS) Tagger:** Developed a stochastic **NLP** PoS tagger through Hidden Markov models (HMMs) in **Python**
  - Determined tagging ambiguities by using a training corpus to compute the probabilities that constitute the parameters of a statistical model. Assigned what Part of Speech tags from the sequence with the highest probability.
- **Java F.E.A.T:** Developed a data-driven system for auto-generating test suites for feedback and assessment in Python programs.
  - Implemented parser, base set generator, tester, and concise set generator using **Java** to reduce the base test set to a smaller, concise set while still offering good coverage guarantees.

LEADERSHIP

Rice African Student Association, Houston, TX
Event Coordinator *September 2021 - Current*

- Lead the planning and implementation of Africaye, an annual cultural showcase, where I oversee the selection and presentation of diverse African traditions and experiences, fostering cultural appreciation among attendees.
- Organize and coordinate smaller events aimed at exposing Rice students to various aspects of African culture, creating opportunities for cross-cultural learning and engagement within the university community.
- Provide leadership to a team of students within RASA, collaborating on the development of innovative ideas and initiatives