

# Renato Adolfo Diaz

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## 🎓 EDUCATION

**University of Central Florida, Computer Science, B.S.** ✎ Aug 2021 – Dec 2024  
NACME Corporate Scholar, SHPE UCF Chapter Member, LEARN Alumni | GPA: 3.4 Orlando, FL

## 🧰 PROFESSIONAL EXPERIENCE

**Big Data SWE Research Intern, Illinois Institute of Technology** ✎ May 2024 – Aug 2024  
Chicago, IL

- Engineered a multi-threaded cryptographic hash tool in Rust, designed to enhance proof-of-space consensus algorithms for blockchain systems in big data contexts. Focused on throughput while maintaining green computing measures.
- Authored and executed over 10 benchmark scripts in Bash & Python to quantify performance metrics of Vault-76. Achieved approximately 300% better throughput & substantially lower latency compared to the existing state-of-the-art solutions.
- Collaborated with 3 software engineers at the DataSys Lab to prepare and submit published research findings at major national supercomputing conferences.

**Software Engineer Intern, Autodesk** ✎ May 2023 – Aug 2023  
San Francisco, CA

- Created an automated anomaly detection tool for the CLS team, enhancing the monitoring of over 400 critical licensing services on prod using Java and AWS.
- Implemented 3 unsupervised machine learning detectors and monitors in Kibana to identify & alert on unusual activities every 10 minutes in licensing service logs, minimizing the need for manual oversight from other senior software engineers.
- Designed and built Slack integrations for real-time anomaly notifications, improving the team's response times to potential disruptions by approx. 200%.

**Software Engineer Intern, Endpoint** ✎ Jun 2022 – Sep 2022  
El Segundo, CA

- Developed over 6 functional unit and integration tests in Python to validate over 12 REST APIs utilized in the Automation Squad's SwaggerHub API platform.
- Contributed to enhancing the CI/CD pipeline by developing happy path test cases, significantly reducing manual testing time & allowing 20% of senior engineers on the Automation Squad to prioritize other advanced development tasks.
- Gained proficiency in Agile and Scrum methodologies, participating in daily standups and bi-weekly sprints & retros using Atlassian Jira for task management.
- Mastered version control practices with Git, managing code in the 10,000+ line project repo and collaborating effectively within a distributed team environment.

## </> TECHNICAL SKILLS

### Programming Languages

Python, Java, C, Rust, Bash, JavaScript, HTML/CSS

### Frameworks

React, Node.js, Express.js, .NET, Spring, ROS, OpenCV, PyTorch, Django

### Libraries

Pandas, NumPy, Matplotlib, Rayon, BLAKE3

### Developer Tools

Git, Linux, VSCode, Ubuntu, Kibana, Microsoft 365, AWS, Unity, Jira, Azure, MongoDB, Jupyter Notebook