Julian Ubico

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Education

University of Florida **August 2021 – May 2025**

Bachelor of Science in Computer Science

Relevant Coursework: Algorithm Abstraction and Design, Information and Database Systems, Operating Systems, Computer Network Fundamentals, Computational Linear Algebra

Technical Skills

Programming Languages: Python, Java, C, C++, JavaScript & TypeScript (ReactJS, NodeJS), Go, SQL, HTML/CSS

System Administration: Linux (Ubuntu, CentOS), NGINX, Bash Scripting, Git, Docker, Kubernetes, Jenkins, GitHub Actions

Technologies: AWS (DynamoDB, EC2, S3, Lambda, RDS), Azure, Transformers, PyTorch, Scikit-learn, OpenCV, Jupyter, Flask

Languages: English (Fluent, Native), Spanish (Fluent)

Experience

Research Assistant **January 2025 – Present**

University of Florida *Gainesville, FL*

- **Qualitatively analyze and code student C++ & Python assignments** to assess learning outcomes and identify programming deficiencies using Bloom's Taxonomy.

Software Engineer Intern **June 2024 – August 2024**

Tech For Good Inc. *Remote — Boston, Massachusetts*

- Reduced **cloud** costs by **up to 30%**, demonstrated through improved resource efficiency, achieved with the **PyTorch** library in **Python** for spot usage optimization.
- Improved real-time data synchronization, evidenced by handling **50,000+ daily requests** with 99.9% uptime, utilizing **Spring Boot** in **Java** for API development.
- Upgraded system infrastructure by optimizing **Kubernetes** resource utilization, accomplished through scalable deployment designs.

Electric Vehicle Service Intern **June 2023 – August 2023**

Tesla Motors *Miami Gardens, FL*

- Diagnosed **Tesla** vehicles effectively, illustrated by successful high-voltage battery and drive unit replacements, executed with **Toolbox 3** and **Toolbox Proxy** tools.
- Isolated electrical faults precisely, validated by safe handling of 400 volt systems, achieved using Fluke **high-voltage multimeters**.

Projects

DirtCraft Modded Minecraft Network | *Java, MySQL, NGINX, Jenkins, Linux*

- **Founded** and managed DirtCraft, which achieved the **#1 global ranking** among modded Minecraft networks, by attracting **over 200,000 unique players** and generating **over $10,000 in monthly revenue** through monetization strategies.
- Maintained 99.9% uptime, ensuring uninterrupted player access, by implementing **CI/CD** pipelines using **Jenkins** with **GitHub webhooks**, **NGINX** for **load balancing**, and custom **Bash** scripts for automated deployments, backups, and log analysis.
- Increased player retention by 50%, tracked through **MySQL database analytics** and user activity stats, enabled by **Java**-based plugins developed with **SpongeAPI** to enhance the gameplay experience.

MathWhiz — 3rd Overall @ SwampHacks X | *Manim, Flask, OpenAI, React, PostgreSQL, Cloudflare Workers*

- Secured **3rd place overall** out of 350 participants, by developing an interactive AI-powered educational tool that dynamically **generates animated math and physics videos**.
- Developed an AI-driven educational platform that improved student comprehension by integrating **Manim** for dynamic mathematical animations, **OpenAI API** for realistic voiceovers, and an **interactive quiz system** to reinforce learning.
- Improved output reliability by 40%, eliminating the need for manual adjustments on animations, by fine-tuning a machine learning model trained on a **high-quality dataset** of Manim scripts and **preprocessing data** for consistency.

Server Administration Panel | *React, Express, Java, MySQL, WebSocket*

- Pioneered a full-stack administration panel by leveraging **React** for interactive user interfaces, **Express** with **Java** for backend logic, and seamlessly integrating **MySQL databases** to manage and monitor multiple interconnected game servers.
- Enabled secure file transfers and streamlined server updates by implementing granular permissions, delivered through an integrated **SFTP server**.
- Improved overall server efficiency, quantified by an average **20-hour reduction** in weekly workload, accomplished by automating routine tasks and utilizing **WebSockets** for real-time monitoring.