

Jatan J. Pandya

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New York, NY

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Portfolio : jatanjay.github.io

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EDUCATION

University of Massachusetts - Amherst

Amherst, MA

*Bachelors of Science in **Computer Engineering** and **Computational Linguistics***

Sept. 2018 – Aug. 2023

Vice President | UMass IEEE Student Chapter

Sept. 2021 – May 2023

Teaching Assistant | M5: ECE Makerspace

Sept. 2019 – May 2021

SKILLS

Languages: Python, C/C++, R

Full Stack: HTML, CSS, JavaScript, ReactJS, PostgreSQL, AWS

Data Science & Machine Learning: PyTorch, Numpy, OpenCV

WORK EXPERIENCE

QuireTech LLC

Cresskill, NJ

Software Engineer

Sept. 2023 – Present

- **Full Stack & Cloud Infrastructure:**

- Architected and implemented an **AWS** infrastructure for uplink and downlink data exchange for over **30**

- LoRaWAN** devices across a 1-mile radius.

- Developed a dashboard offering **real-time** access to critical statistics like device health, status, and GPS location.

- **IoT:**

- Upgraded from an **RPi**-based system to **ESP32** within a tight **2-week** deadline, **cutting** per-unit **cost** by **93.33%** and enhancing the capabilities and portability of the unit.

- Implemented a **web app** with file management capabilities, enabling direct uploads to streamline processes and enhance flexibility.

- **Client Engagement:**

- Acquired **2 new clients** through proactive outreach efforts.

- Proposed and implemented improvements, leading to heightened client satisfaction and retention.

PROJECTS

Live Dashboard | jatanjay.github.io/loradashboard

Jan. 2024 – March 2024

- Developed a **real-time** dashboard to visualize device telemetry data, providing user with instant insights into device performance and status.

- Utilized **AWS** services including **IoT Core** for device communication, **DynamoDB** for data storage, and **Amplify** for deployment of the application.

CardVerse | jatanjay.github.io/CardVerse

Sept. 2022 – May 2023

- Developed a **machine** capable of **authenticating**, **grading**, and **sorting 1000 Magic: The Gathering** cards, streamlining the card authentication and inventory pipeline.

- Designed a **machine learning** pipeline utilizing YOLOv8 to identify card defects with **97% accuracy**, effectively recognizing scratches, bends, and dents.

- Implemented an **image processing** pipeline achieving a **99% authentication accuracy** on industry-standard tests.

- Engineered a system leveraging Jetson and RPi, to integrate a 3 axis robotic **gantry** arm, multiple cameras, a weighing scale, and an LED chamber, enabling precise card handling and examination.

AWARDS AND ACCOLADES

Chancellor's Award

\$14,000 Annually

UMass Business Plan Pitch 2022 | *CardVerse*

\$4,500 Second Place

UMass Berthiaume Innovation Challenge 2023 | *CardVerse*

\$1,000 Top 5 Finalist

UMass Entrepreneurship ULaunch 2022 | *CardVerse*

\$1,500 First Place