

# Jatan J. Pandya

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New York, NY

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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

**Real Time Dashboard** | [jatanjay.github.io/loradashboard](https://jatanjay.github.io/loradashboard)

*Jan. 2024 – March 2024*

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

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

**CardVerse** | [jatanjay.github.io/CardVerse](https://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*