

# 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

Bachelors of Science in *Computer Engineering and Computational Linguistics*

Amherst, MA

Sept. 2018 – Aug. 2023

## 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

Software Engineer

Cresskill, NJ

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 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](https://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](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.

## LEADERSHIP EXPERIENCE

**Vice President** | UMass IEEE Student Chapter

Sept. 2021 – May 2023

**Teaching Assistant** | M5: ECE Makerspace

Sept. 2019 – May 2021

**Resident Assistant** | UMass Residential Life

Sept. 2021 – May 2023

## AWARDS AND ACCOLADES

**Chancellor's Award 2018-2023**

**\$14,000 Annually**

**UMass Berthiaume Innovation Challenge 2023** | CardVerse

**\$1,000 Top 5 Finalist**

**UMass Business Plan Pitch 2022** | CardVerse

**\$4,500 Second Place**

**UMass Entrepreneurship ULaunch 2022** | CardVerse

**\$1,500 First Place**