

MICHAEL PELUSO

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PROFESSIONAL EXPERIENCE

ASRC Federal – *STRIDE Software Intern | CTO team*

June 2024 – August 2024

- Led full-cycle development of *PANDORA*, an AI-powered solution for NASA satellite research, automating NLP-driven resource management as part of an R&D initiative, with 4,000+ lines of code using OpenAI's ChatGPT and Python libraries like Pandas, NumPy, and Matplotlib.
- Reduced API costs by 50% through prompt engineering, batch processing, and fine-tuning – ensuring near-deterministic AI outputs.
- Engineered AI models to transform unstructured technician emails into structured data and generate context-aware confirmation emails.
- Developed a full diagnostics system, processing 100,000+ logs and automating reports on session anomalies, API usage, and resource conflicts.
- Voluntarily delivered a 30-minute, company-wide presentation of *PANDORA*, earning praise and a flawless supervisor evaluation.

Outsource My I.T. – *IT Quality Assurance Technician*

January 2024

- Managed IT and system issues for 300+ clients via Kaseya, addressing client security, program maintenance, and user account administration.
- Diagnosed and resolved technical challenges (DNS configurations, connectivity) with a team, improving network stability and user experience.

The Guitar Shop – *Project Manager, Website Developer* – theguitarshop.co

June 2023 – September 2023

- Singlehandedly designed and developed a custom 12-page company website managed via Google Cloud Platform.
- Deployed a dynamically updating product library and filtering system for 75+ products, boosting customer engagement and overall sales.
- Established online customer service outlets via embedded email support.

C3 Designs – *Website Developer*

April 2023 – August 2023

- Transformed visions from clients into 3+ fully functional, interactive web applications, offering an online presence and increasing awareness.
- Created 10+ dynamic, interactive elements like navigation bars, carousels, and store reviews via WordPress and WordPress Engine.

PROJECTS & OTHER EXPERIENCE

Git Guru – [GitHub Project Files](#) (*demo video*)

April 2024 – May 2024

- AI-powered tool that generates customized readme.md files, detects syntax errors, and offers inquiry-based assistance for any GitHub repository.
- Incorporated Retrieval Augmented Generation(RAG) in Python using LangChain and OpenAI API to slice, embed, and store user-selected files.
- Designed a Flask-based UI enabling users to select specific repository files, store them locally, and query questions with real-time, direct output from ChatGPT.

BookQuest – [GitHub Project Files](#)

January 2024 – May 2024

- A full-stack web application with a multi-environment deployment pipeline using Apache, MySQL, PHP, RabbitMQ, Docker, and Traefik.
- Orchestrated a secure, asynchronous message-driven architecture with RabbitMQ, enabling encrypted user verification and authentication, cross-cluster logging synchronization, local caching, and back-end database search functionalities.
- Used custom scripts to automate VM provisioning, service orchestration, containerized hosting, load balancing, traffic distribution, and database replication across development, test, and production clusters.

Communica Social – [GitHub Project Files](#)

September 2023 – December 2023

- Organized and maintained a MongoDB database with 300+ records of user account data and user-made posts via web routing and API requests.
- Successfully integrated a custom-built CRUD API, written with Node.js and Express.js, into a full-stack, social media application comprised of users, user accounts, and public posts.
- Scripted front-end login, search, and post forms in React.js, allowing users to reference and update their account and the MongoDB database.

Rent-A-Car – [Project Report](#)

September 2023 – December 2023

- Designed and integrated a database schema into Oracle SQL Developer, containing 8 tables with data for 5 dealership locations.
- Organized all data into a visual representation, streamlining efficiency in data retrieval, analysis, and decision-making processes.
- Retrieved this data from Oracle database via 15+ custom API requests, built with Node.js and Express.js.

The Story Keeper Bookstore – [GitHub Project Files](#)

January 2023 – May 2023

- Full stack application that offers bookstore employees the ability to effectively create and manage client and management database records.
- Used a CRUD API to regularly access and update a phpMyAdmin database containing 50+ records.
- Integrated JavaScript and PHP into several front-end webpages that display dynamic tables holding data on customers, purchases, and books.
- Crafted an in-depth JavaScript login and registration system that performs internal validation and external verification of user input.

Escape 2 – [GitHub Project Files](#)

January 2023 – May 2023

- Created 3 puzzle-driven, fully interactable, physics-based escape rooms using C# and Unity Engine.
 - Implemented VR locomotion, world and item interaction, scene transitioning, and motion-based gameplay features via 10+ scripts written in C#.
- Organized professional beta-level product testing with 20+ volunteers. Player feedback was captured and heavily analyzed during production.

EDUCATION – New Jersey Institute of Technology

Master of Science in Computer Science

January 2023 – May 2026

Specializations: Software Engineering, Artificial Intelligence

GPA: 3.6 / 4

Bachelor of Science in Information Technology

September 2021 – May 2025

Specialization: Web Applications

GPA: 3.6 / 4

Minors: Computer Science, Web and Mobile Development

Clubs/Organizations: Albert Dorman Honors College, Dean's Scholars List, NJIT ACM, NJIT IGDA, NJIT SIGGRAPH

Relevant Courses: Advanced Internet Applications, Database Management System Design, Computer Systems Architecture, Operating System Design, System Administration, Programming Language Concepts, Computer Networks, Software Testing and Quality Assurance

SKILLS

Programming & Development: HTML, CSS, JavaScript, Python, Java, C, C++, C#, PHP, SQL, Node.js, Express.js, React, Flask, Bash, Assembly

Tools & Platforms: Git/GitHub, Linux/Unix distributions, GDP, AWS, Docker, VMware, VirtualBox, Kaseya, RabbitMQ, Postman

AI & Data Science: Deep Learning, Neural Networks, RAG, NLP, Anomaly Detection, Prompt Engineering, OpenAI & LangChain APIs

Databases & Testing: MongoDB, MySQL, Oracle SQL Developer, PhpMyAdmin, PyTest, EvoSuite, AFL