Alexander Torres Vivaldo

atorresv@andrew.cmu.edu | 646-973-0048 | https://www.linkedin.com/in/alexandertorresvivaldo/
https://github.com/AlexDaGreat555

EDUCATION

Carnegie Mellon University Pittsburgh, PA
Bachelor of Science in Information Systems, GPA: 3.40 05/2027
Minor in Software Engineering, Concentration in Information Security
Relevant Coursework: Data Structures & Algorithms, Database Design & Development, Mobile App Development, Fundamentals of Software Engineering, Introduction to Information Security Management, Fundamentals of Programming, Application Design & Development, Usable Privacy & Security

TECHNICAL SKILLS

Programming: React Native, TypeScript, Python, JavaScript, Java, SQL, HTML/CSS, Ruby, C, Swift
Technical: Docker, Ruby on Rails, Django, Node.js, Linux, PostgreSQL, MongoDB, Git, GitHub, Bootstrap
Certifications: Google Cybersecurity Professional Certificate, AWS Fundamentals Certificate

WORK EXPERIENCE

JPMorgan Chase New York, NY
Software Engineering Intern Incoming Summer 2026

Carnegie Mellon University - Heinz College of Information Systems & Public Policy Pittsburgh, PA
Database Design & Development Teaching Assistant 08/2025 – 12/2025
- Enhanced 100+ students' proficiency in PostgreSQL and MongoDB by leading lab and office hour sessions on database initialization, schema creation, and query optimization

Chalfant Run/Thompson Run Watershed Association Pittsburgh, PA
Software Engineering Intern 05/2025 – 08/2025
- Scraped and processed 1,000+ watershed data points using custom JavaScript modules, automating data collection and eliminating hours of manual research
- Engineered an interactive data layer using the Google Maps API, improving volunteer engagement through real-time exploration of environmental features

Carnegie Mellon University - Civil and Environmental Engineering Pittsburgh, PA
Data Science Research Intern 05/2025 – 08/2025
- Developed data visualizations and built regression models using Python libraries (Pandas, Matplotlib, Seaborn, Statsmodels) to uncover patterns in survey and observational data, enabling researchers to extract key insights

Carnegie Mellon University - Heinz College of Information Systems & Public Policy Pittsburgh, PA
Information Systems Milieux Teaching Assistant 01/2025 – 05/2025
- Delivered hands-on support in web development and database labs, guiding students through JavaScript functionality, SQL queries, and debugging techniques, resulting in improved understanding of core concepts

PROJECTS

Roi Du Pain Full Stack Application (MVC, Ruby on Rails, API Development, JavaScript)
- Engineered a maintainable Ruby on Rails e-commerce application by integrating MVC components, reducing code complexity and improving feature development speed for a smoother user and admin experience
- Implemented authentication and authorization mechanisms to manage user roles, enabling secure user access controls
- Developed RESTful APIs through Rails controllers and JSON serializers, enabling third-party services to integrate product data

JPMorgan Chase Code 4 Good IMPACT Full Stack Project (Flask, React, TypeScript, PostgreSQL, REST API)
- Designed and initialized application database using PostgreSQL, following ERD development and normalization to create a scalable and maintainable schema that improved data integrity and query performance
- Developed API endpoints to enable React components to fetch and paginate data efficiently to enhance frontend responsiveness

Discord Database Design & Development (SQL, PostgreSQL, Python, Databases)
- Designed and implemented Discord's early-stage database by converting 10 user stories into conceptual and physical models, initializing a scalable PostgreSQL schema to support future feature development
- Developed and executed ten user stories using advanced SQL queries, triggers, and functions to ensure database integrity and support business requirements

LEADERSHIP AND PROFESSIONAL DEVELOPMENT

Society of Hispanic Professional Engineers Pittsburgh, PA
Web Dev Chair 08/2023 – Present
- Supported community-building for Hispanic STEM students by managing the chapter website and participating in professional development activities, including conferences and development workshops, ensuring alignment with SHPE requirements

Management Leadership for Tomorrow Washington, DC
Career Preparation Fellow 01/2025 – Present
- Accepted into a selective 18-month professional development program for high-achieving diverse talent