

Melissa Cromwell

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Professional Summary

A versatile and results-driven Full-Stack Software Engineer with over 10 years of experience in designing, developing, and deploying end-to-end applications for enterprise environments. Specializes in creating robust backend systems with Python (Django, DRF) and modern, responsive frontends using technologies like TailwindCSS, AlpineJS, and HTMX. Proven expertise in systems architecture, data engineering, and infrastructure management across Linux and Windows platforms. A self-motivated problem-solver with a passion for automation, data-driven solutions, and building scalable, resilient software for remote and distributed teams.

Technical Skills

Category	Skills
Languages	Python, Node.js, Java, PHP, JavaScript, SQL, PL/SQL, T-SQL, PL/pgSQL, HTML, CSS
Backend	Django, Django REST Framework (DRF), Celery (Worker & Beat), TensorFlow
Frontend	TailwindCSS, AlpineJS, HTMX, Plotly.js, Tabulator, Font Awesome, WordPress
Databases	PostgreSQL, MySQL, Oracle, Microsoft SQL Server, SQLite
Infrastructure & DevOps	Linux Server (Ubuntu 16.04-24.04), Windows Server, cPanel, SSH, SSL Configuration, VM Management, Automated Backups
Operating Systems	Linux, macOS, Windows
Professional	Systems Architecture, API Design, Data Engineering & Migration, Agile Methodologies, Technical Documentation

Professional Experience

Software Engineer

Point Lisas Industrial Port Development Corporation (PLIPDECO) / Trinidad and Tobago
January 2022 – Present

- Leading the development of a new, company-wide PPE Management System (v2) using a modern stack: Django/DRF backend, PostgreSQL database, and a frontend built with **TailwindCSS, AlpineJS, and HTMX**.
- Architected a resilient data synchronization process using **Celery Beat and Worker** to sync data from a read-only MSSQL database to the application's PostgreSQL instance, ensuring the system remains fully operational even if the source database is unavailable.
- Integrated **TensorFlow** for intelligent document processing, enabling the system to extract and process information from uploaded files automatically.
- Implemented modern user interface features including **Plotly.js** for data visualization, electronic pad and web signature capture, and a contemporary glassmorphism design aesthetic.
- Previously architected and developed a comprehensive logistics and supply chain management system to handle interactions between customers, agents, customs, and internal administrators.
- Manages a diverse server environment, including multiple Ubuntu Linux VMs (16.04 to 24.04) and Windows Servers, handling everything from initial setup to ongoing maintenance and security.

Programmer/Analyst

College of Science, Technology and Applied Arts of Trinidad and Tobago (COSTAATT) / Trinidad and Tobago
August 2011 – January 2022

- Performed a large-scale data engineering and migration project for the Accounts Receivable department, analyzing and applying government funding records to over 16 years (2005-2021) of student accounts within the ERP system.
- Created complex data reports, including raw data extracts and graphical visualizations, using a combination of advanced SQL, Python scripts, and the Argos reporting tool.
- Collaborated with local financial institutions to configure and implement the **TouchNet** online payment gateway, enabling secure online transactions for students.
- Assisted in the management and enhancement of the college's **WordPress** website, including developing custom forms and implementing new features like a user feedback modal.

Systems Support Administrator

Covanta Energy Corporation / New Jersey, USA July 2009 – June 2010

- Provided dedicated support for PeopleSoft and Maximo ERP systems, working closely with developers and database administrators to resolve integration issues.
- Utilized SQL queries and XML scripts to troubleshoot and resolve complex technical problems, ensuring the smooth operation of business-critical applications.

Education

Bachelor of Science in Computer Information Systems *Mansfield University of Pennsylvania / Mansfield, PA, USA Major: Computer Science, Minor: Mathematics*
Graduated: May 2009