JERMIN B. ODCHEO

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SKILLS

- Programming Languages: Java, Python, JavaScript, PHP
- Frontend: HTML5, CSS, React, Bootstrap, Tailwind CSS
- Backend / Web: Node.js, Flask, PHP (server-side), REST APIs
- Databases / Query: MySQL, SQL
- Data & ML: scikit-learn, PyTorch, pandas, NumPy
- Dev Tools: Git, GitHub, VS Code, Jupyter Notebook
- Local Dev Stacks: XAMPP, WAMP
- CMS: WordPress

EXPERIENCE

Saint Louis University **January 2025 - May 2025**
Full Stack Web Developer Intern

- Cut incident investigation time from hours to minutes by developing detailed CRUD audit logging using SQL Trigger.
- Eliminated unauthorized access and streamlined user management by implementing role-based access control (RBAC) with PHP-driven logic and conditional rules.
- Reduced inventory search time by ~40% and improved staff efficiency by designing and deploying an IMS for TMDD, with a normalized database schema and composite indexes.
- Enhanced performance and user experience for large inventory tables with client-side filtering and pagination, reducing initial load by over 60%.
- Delivered customizable one-click exports with selectable formats and columns, empowering users and reducing IT support requests.

PROJECTS

Machine Learning Model for Predictive Analysis

- Cleaned and engineered five years of city crime data, standardizing categories, handling missing values, and encoding text attributes with pandas, NumPy, and scikit-learn.
- Developed and tuned K-means to reveal 4 distinct demographic crime profiles, then profiled clusters with feature-importance views and stakeholder-ready visualizations.
- Applied sequential pattern mining to surface high-support offense sequences and temporal associations that inform targeted prevention strategies.

Generative AI Chatbot

- Fine-tuned a BART model for context-aware responses and served inference via Flask, deploying a working prototype on a mock SLU portal built with HTML/CSS/JavaScript.
- Built an evaluation harness with BERTScore, BLEU, and ROUGE, and iterated via prompt and dataset augmentation to improve relevance and coverage.
- Benchmarked multiple model variants and selected BART for the best fluency/adequacy trade-off as verified by automated metrics.
- Automated answers for ~80% of common inquiries and cut average wait time by ~5 minutes during peak periods

EDUCATION

Bachelor of Information and Technology **August 2021 - June 2025**
Saint Louis University
Graduation: July 2025

- Honor/Award: Dean's List
- Relevant Coursework: Programming, Data Structures, Data Analytics, Data Mining, Web Development, Machine Learning, Database Management System, Application Development, Computer Network, Project Management