Ram David M. Brodett

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PROFESSIONAL SUMMARY

Computer Science Senior specializing in Full Stack Development, with a primary focus on Backend systems and AI/Machine Learning integration. Experienced in developing scalable applications and engineering robust workflows, prioritizing code quality and practical solutions.

EXPERIENCE

Undergraduate Researcher Oct 2024 – Present

De La Salle University Human-X Interactions Laboratory *Manila*

- Devised a comprehensive development strategy for a novel text-to-audio application by analyzing industry-standard AI pipelines and identifying critical literature gaps in user personalization and localization.

Development Associate Jan 2026 – Present

De La Salle University FRWRD *Manila*

- Co-developed proprietary software solutions from concept to deployment, collaborating with cross-functional teams to identify bottlenecks and optimize daily workflows by 60%.

PROJECTS

Hearsona May 2025 – Present

- Architected a text-to-audio platform featuring a dynamic LLM-orchestrated pipeline with human-in-the-loop refinement for enhanced output relevance.
- Optimized system performance via asynchronous task processing and tuned inference parameters, balancing computational load with high-fidelity generation.

Distributed OCR System Nov 2025

- Architected a distributed system using gRPC and Protocol Buffers, implementing a thread-safe Producer-Consumer pattern to decouple network I/O from CPU-intensive OCR tasks.
- Developed a fault-tolerant asynchronous Qt (C++) client, integrating retry logic and exponential backoff to ensure robust communication under network instability.

Lexson Inventory and Billing System Oct 2024 – Dec 2024

- Led the end-to-end development of a custom inventory system, designing a centralized database architecture for real-time stock tracking and financial reporting.
- Automated the business pipeline from order fulfillment to billing, eliminating manual entry errors and increasing staff productivity.

Handwritten Digit Recognition Jul 2023

- Conducted a comparative analysis of ML models (CNN, MLP, SVM), implementing data normalization and model tuning to achieve 97.35% accuracy.

EDUCATION

De La Salle University Manila

Bachelor of Science in Computer Science, Major in Software Technology *Aug 2022 – Oct 2026*

TECHNICAL SKILLS

Languages: Python, C/C++, C#, Java, JavaScript, TypeScript, Kotlin, Go, SQL
Frameworks: Pytorch, Hugging Face, FastAPI, Next.js, React.js, Qt, JavaFX, JUnit
Libraries: Pandas, NumPy, Scikit-learn, Llama.cpp, Matplotlib
Developer Tools: Git, Docker, Jira, Google Cloud Platform (GCP), Amazon Web Services (AWS)