

Denver G. Magtibay, ECE, ECT, MAIB

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PROFESSIONAL SUMMARY

I am an Agentic AI Engineer at FutureCraft Technologies, leveraging advanced artificial intelligence to design agentic systems and drive digital transformation. With 7 years of distinguished experience as a renowned engineering instructor and national board exam review lecturer, and as a topnotcher in both the ECE and ECT licensure examinations in the Philippines, I bring a unique blend of technical expertise and instructional excellence. Having also served as a judge in national academic competitions and mentored countless aspiring engineers, I now channel my passion for solving complex problems into building data-driven, AI-powered solutions that shape the future of technology and foster innovation across industries.

PROFESSIONAL EXPERIENCE

FutureCraft Technologies Inc. **Agentic AI Engineer**

Wyoming, USA
August 2025 – Present

As an Agentic AI Engineer, I design and develop intelligent agent-based systems that autonomously plan, reason, and execute tasks by integrating advanced large language models (LLMs) with specialized tools, APIs, and knowledge bases. My role involves building orchestrated multi-agent architectures, implementing retrieval-augmented generation (RAG), and applying reinforcement and guardrail mechanisms to ensure accuracy, reliability, and ethical AI behavior. I collaborate across teams to deploy scalable AI solutions that automate complex workflows, enhance decision-making, and drive digital transformation in business and technology environments.

Smart Edge ECE Review Specialist **Review Specialist / Data Scientist**

Manila, PH
January 2017 – 2025

As the Review Specialist of Smart Edge Review Center, the No. 1 ECE review center in the country with an impressive 80% annual passing rate, I oversee ECE review programs, author review books, manage online and in-person campaigns, and collaborate with college deans and department heads to support graduates in their board exam preparations, ensuring a streamlined path to success. I leverage Generative AI and Prompt Engineering techniques to develop AI-driven lectures and exam questions that closely follow board exam patterns. Using Retrieval-Augmented Generation (RAG), Few-Shot Learning, and Chain-of-Thought (CoT) prompting, I refine AI-generated content to enhance accuracy, contextual relevance, and knowledge retention for students. Additionally, I utilize machine learning models and AI-driven analytics to predict students' likelihood of passing and forecast board exam questions, providing data-driven insights that improve review strategies. Notably, Smart Edge dominated the October 2024 ECE Board Exam, sweeping all topnotchers, reinforcing our commitment to excellence and innovation in engineering education.

University of Batangas **Part-Time College Instructor**

Batangas City, PH
Nov 2016 – 2021

As a dedicated college instructor, I played a pivotal role in fostering academic growth and imparting knowledge to students, specializing in Mathematics, Engineering Sciences, and Electronics Engineering. My responsibilities included delivering comprehensive lectures, employing innovative teaching methods, and developing engaging curricula to make complex technical concepts accessible. Driven by a passion for education, I sought to inspire and empower students with the skills and knowledge necessary for excelling in their academic pursuits and future careers. By cultivating a supportive and dynamic learning environment, I aimed to prepare the next generation of engineers and scientists for success in their professional journeys.

RECENT AND CURRENT PROJECTS

Automated Question Generation for Electronics Engineering Exams

Developed a system using GPT-4, LangChain, and Streamlit to generate high-quality exam questions stored in a Chroma vector database. Leveraged RAG for accurate, contextually relevant outputs, including questions, answers, and references. Evaluated with BLEU and ROUGE metrics, validated by experts and AI for accuracy and grammar.

Authors: Denver G. Magtibay, Dr. Debashis Guha

Accepted for presentation at ICECET 2025 – International Conference on Electrical, Computer, and Energy Technologies, Paris, France, July 3-6

LightRAG-Enhanced Automated Question Generation System

Designed an enhanced AQG system with LightRAG and Streamlit, introducing graph-based text indexing and dual-level retrieval for improved precision and scalability. Enabled multi-topic exam generation, detailed explanations, and Canvas-compatible exports, outperforming traditional RAG systems in accuracy and relevance.

Authors: Denver G. Magtibay, Dr. Debashis Guha

Accepted for presentation at WAIE 2025 – 7th International Workshop on Artificial Intelligence and Education, Yokohama, Japan, September 27-29

EDUCATION

SP Jain School of Global Management

Master of Artificial Intelligence in Business

SP Jain Scholar (Dean's Lister 6/6 terms)

GPA 3.88/4.00

Sydney, Australia

2023 – 2025

IBM EdX

Professional Certificate Program for Data Science

IBM Scholar (10/10 Courses)

EdX Online

2023 – 2024

University of Batangas

Bachelor of Science in Electronics Engineering

Magna Cum Laude – Batch Valedictorian

GPA 1.20/1.00

5th Placer in 2016 Electronics Engineering Licensure Examination

4th Placer in 2016 Electronics Technician Licensure Examination

Batangas City, PH

2011-2016

University of Batangas

Secondary Education

Valedictorian

Batangas City, PH

2007-2011

Bolbok Elementary School

Primary Education

Valedictorian

Batangas City, PH

2001-2007

OTHERS

Languages:

English, Filipino

Software / Technical Skills:

AI and Machine Learning, 5-star HackerRank Python Programming and SQL, Microsoft Office, R Programming, Chatbot Development, Prompt Engineering, Data Science, Course Hero Tutor (Math and Sciences), Electronics engineering

Kaggle Profile:

<https://www.kaggle.com/denvermagtibay> (Kaggle Notebook Expert)

GitHub Projects:

<https://github.com/WarDen-Git>

Credly Profile:

<https://www.credly.com/users/denver-magtibay>

Professional Development:

Licensed Electronics Engineer, Licensed Electronics Technician, IBM Professional Data Scientist, SP Jain MAIB Student Ambassador, Master of AI in Business