
Kean University

MS Computer Information Systems

December 2025

BSc Computer Science

December 2023

- UPE Honor Society, Vice President @ ACM-W, ACM member, Computer Coach@ Search and Care

Skills

Language: Python, Java, SQL (stored procedures, triggers), JavaScript (Jquery/ Ajax), HTML/CSS, XML, R, Assembly, PHP, MatLab

Tools/Framework: HuggingFace, LangChain, TensorFlow, Keras, PyTorch, Pandas, Scikit-Learn, React, Node.js, AWS (EC2, S3, RDS), agile

Software: Power BI, MySQL, GitHub, Android Studio

Experience

Graduate Research Assistant | Kean University |

September 2024 – Present

- Conducting applied AI and data science research focused on **ethical AI integration** and **healthcare informatics**.
- Assisting faculty in data preprocessing, model evaluation, and technical documentation for ongoing research projects.

Graduate Assistant | Kean University |

September 2023 – August 2024

- Supported undergraduate computer science instruction through lab supervision and tutoring in **SQL, Python, and machine learning**.
- Designed practice datasets and coding exercises to enhance students' analytical and programming skills.

Projects

Embedded AI Ethics Research Project | Kean University |

May 2024 - Present

- Participating in a national initiative to **integrate AI Ethics into computer science education**, including courses such as **Machine Learning, Software Engineering, Data Structures, and Algorithms**.
- Collecting and analyzing **student assignments and feedback** to evaluate perceptions and ethical decision-making in AI-related coursework.
- Contributing to the development of frameworks that promote **responsible AI design, fairness, and transparency** in academic and professional computing contexts.

Electronic Health Records (EHR) | Kean University |

September 2024 - Present

- Developed an **AI-powered chatbot** to assist healthcare workers with clinical decision support using **Electronic Health Records (EHR)** data.
- Experimented with multiple NLP models including **DistilBERT** and **MiniBERT**, comparing outputs against **ground truth** data for accuracy in risk assessment.
- Fine-tuned **GPT-4** and **Retrieval-Augmented Generation (RAG)** architectures to enhance model reasoning and reduce hallucination in healthcare dialogue.
- Designed a **decision-tree-based conversational agent** to guide users through daily medical tasks, supported by a defined **agent regulation system** that manages user roles and task delegation.
- Evaluated model performance through domain-specific metrics to ensure reliability and ethical compliance with AI-driven clinical assistance.

U.S. ZIP Data Visualization Project | Kean University |

September 2025

- Analyzed demographic and economic data from the USZips dataset using SQL and Power BI. Built data marts, aggregated ZIP-level data, and created interactive visualizations (heatmap, bar chart, scatter plot) to highlight state and county socioeconomic trends.

Booking hotel project | Kean University |

April 2025

- Developed using **PHP** and **MySQL** with strong focus on server-side logic
- Secure user **authentication with hashed passwords** and session management
- SQL queries handle room search, availability checks, and reservation creation
- Uses **INSERT, UPDATE, and conflict-checking** queries to prevent double bookings
- **Database schema** includes **users, rooms, and reservations with foreign keys and indexing**
- Reservation **workflow supports confirming or canceling** bookings
- Backend ensures proper **data flow, transactional integrity, and realistic** booking behavior
- Styling is minimal, since the emphasis is on functionality and **backend operation**

Research & Publication

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- [1] M. Tamegnon* and D. Kwak, "Sentiment Analysis of Plastic Ban on Social Media," in National Conference on Undergraduate Research (NCUR) 2023, Eau Claire, WI, Apr. 13-15, 2023