#### Kent State University | BS. Computer Science

May 2025/GPA 3.75

• **Relevant Coursework:** Data Structures & Algorithms, Operating Systems, Database Systems, Network Security, Network Systems, Software Engineering, Secure Programming, Artificial Intelligence, Machine Learning, Human Interface Computing, Big Data

#### **SKILLS**

Programming Languages: Python, C++, Java, JavaScript, R-Studio, HTML, CSS, SQL

Frameworks/Libraries: Next.js, React, GraphQL, Node

Mobile Development: Android Application Development (Studio), React Native, Django, Flutter

APIs: React APIs, RESTful APIs

AI/ML/Data: Artificial Intelligence, Machine Learning, TensorFlow, Scikit-learn, Pytorch, Numpy, Pandas

Databases: MySQL, PostgreSQL

**Cloud and DevOps:** Amazon Web Services (AWS), Azure **Developer Tools:** Figma, Postman, Jira, Git, GitHub

#### **PROJECTS**

## Machine/Deep Learning ☐ | Model Developer/Trainer/Fine Tuner

Spring 2025

- Headed end-to-end construction of a predictive ML pipeline to predict student performance based on country, topic, sub-topic, and associated keywords, using a dataset of 9546 records.
- Formulated, trained, and examined two supervised models: a TensorFlow deep learning sequential model (60% accuracy) and a Scikit-learn XGBoost classifier (72.35% accuracy), and authored a report.

## Image Explainer ☐ | GenAI Mobile-App Developer

March 2024

- Spearheaded delivery of a cross-platform (iOS/Android) React Native app to enable real-time object recognition for visually impaired users; integrated Gemini Gen AI Vision & Language APIs via React Native's fetch client and invoked native Text-to-Speech bridges for instant audio feedback.
- Engineered a Node.js backend with 5+ RESTful JSON endpoints, implementing JWT-based stateless authentication, bcrypt password hashing, and secure session tokens to secure user accounts.
- Designed and optimized a relational SQL database with normalized schemas, indexed columns, and connection pooling to implement low-latency average query retrieval

## NEO Volleyball (Webapp) ∃ | Full Stack Developer

Fall 2024

- Built a cross-platform tournament manager using React.js (Bootstrap) and Django REST Framework.
- Developed RESTful APIs, JSON parsing, and custom middleware for real-time frontend-backend sync for reactive state management, client/server-side form validation, and live UI shuffling of players.
- Automated legacy Excel-based processes by creating import/export pipelines and dynamic form generators; implemented modular components to support concurrent edits and live data sync.
- Built JWT-based auth system, registration portal & calendar scheduler with React Hooks and Context API. Designed UML diagrams, system architecture docs, & showcased the app as a final presentation.

### Fresh Food Delivery Website ☐ | Full Stack Architect & Developer

Spring 2023

- Designed and built an e-commerce app using Vanilla JS and Flask (Python), exposing JSON endpoints consumed via jQuery AJAX fora dynamic product catalog, cart operations, and order management
- Applied cognitive design principles to design an interactive UX, optimizing accessibility and performance, culminating in a polished live demo presented to 30+ classmates and faculty.

#### **EXPERIENCE**

### Dr. Gokarna Sharma, Ph.D. (KSU) | Research Assistant

Fall 2024 - Spring 2025

- Co-led a faculty research project, mapping end-to-end data flows between blockchain validation layers & AI inference components to define technical requirements for data accuracy, integrity, & auditability
- Conducted in-depth technical literature review of blockchain consensus and cryptographic protocols (PoW, PoS, Merkle Trees) to architect a secure on-chain data layer for AI model preprocessing.
- Designed use cases for blockchain-verified datasets in TinyML training pipelines, detailing how immutable provenance and integrity checks can boost query precision and reduce inference overhead.
- Authored a review paper on advanced reasoning-capable LLMs (OpenAI-o1 v. DeepSeek-R1), analyzing pre-training methods, RLHF and distillation pipelines, CoT prompting, and RL optimizers.

# Kent State University | Technical Support

Dec 2021 - May 2025

- Automated user lifecycle management in Active Directory & Office 365 by scripting bulk provisioning and policy assignments with PowerShell
- Diagnosed and resolved complex software, hardware, and network issues across Windows & Mac environments, enhancing system reliability.