

## EDUCATION & CERTIFICATIONS

**Master of Science in Computer Science** from University of Houston-Clear Lake, Houston, TX, will graduate in May 2025.

**Bachelor of Technology in Computer Science Engineering** from Koneru Lakshmaiah University, India, graduated in Apr 2023.

**MS Azure Certifications:** Devops Engineer Expert Az-400, Microsoft Developer Associate Az-204.

**IT Certifications:** Aviatrix Certified Engineer Multi-Cloud Networking Associate, Talentnext-Java J2EE.

## TECHNICAL SKILLS

**Development:** Full Stack Web Development (React JS, Spring Boot), Web Technologies (HTML, CSS, JavaScript), Agile.

**Programming/ Modern Languages:** Java, Python, C.

**Software/Tools:** Git, VS Code, Eclipse, Google Colab, Maven, Tomcat.

**Databases & Operating Systems:** PostgreSQL, MySQL; Windows, Linux, Unix.

**Courses:** Artificial Intelligence, Machine Learning, Software Engineering, Object-Oriented Programming (OOP).

## EXPERIENCE

### ForeSight – Early Warning System

- Designed and developed an early warning system for weather conditions and disasters, aggregating real-time data from various organizations. The main module works on top of the weather monitoring application and provides real time alerts for specific weather conditions, for user-specified locations. This integrated alerts module leverages GMAIL-SMTP & geolocation, to send notifications.
- Designed a disaster module that tracks earthquakes, tornadoes, wildfires and hurricanes. Used Matplotlib, TensorFlow, Keras for visualizing trends to report out interactive graphs.

**Tech Stack:** React.js (Frontend), Python (Data Processing), Matplotlib (Data Visualization), PostgreSQL (Database), REST API (API Integration), Git (Version Control), SendGrid (Email Notifications), Azure Cloud Services (Project deployment).

### **DailyCast – Real-Time Weather Monitoring App**

- Developed a real-time API-based weather monitoring application using **Python**, offering data visualization and predictive insights.
- Built a location module to provide precise weather updates & a safety module to recommend precautions to users based on forecasts.

**Tech Stack:** Python (Data Processing), Flask (Backend), OpenWeather API (Data Source), Matplotlib & Pandas (Visualization), Git.

### **Shopee – Retail Shopping Platform**

- Developed an e-commerce platform with **Java** using **Spring Boot** which offers users access to essential deals on regular shopping cart items. Integrated all the essential functionality, like user authentication, order management, payment processing, etc. Redesigned and simplified the UI using agile features, for an enhanced user experience.

**Tech Stack:** Java, Spring Boot, MySQL.

### **Travello – Smart Recommendation Platform for Tourism**

- Designed and developed a tourism website to recommend budget-friendly travel experiences, using **Django** to create a user-friendly interface. Implemented a personalized travel suggestion engine, which takes user preferences like budget constraints, etc. into consideration, and can also make activity-based recommendations like hiking, beaches, skiing, etc.

**Tech Stack:** HTML/CSS & Bootstrap (Frontend), Django (Backend), Google Maps API (Location Services), Git (Version Control).

### **Lung Cancer Detection – Deep Learning Model**

- Developed a Python-based deep learning model leveraging Transfer Learning (EfficientNet B2 Architecture), achieving 90.18% detection accuracy. Evaluated the model using validation accuracy, F1 score and confusion matrix, and further enhanced accuracy & processing speed.
- Implemented feature extraction, image segmentation & data augmentation for better classification of non-small cell lung cancer types.
- Published a research paper for IEEE on automated lung cancer detection using CT scan images, eliminating manual radiologist diagnosis.

**Tech Stack:** Python (Data Processing)

### **Teaching Assistant / Mentorship**

- Acted as a TA for software engineering related subjects and served as a mentor for Java, Python, and Data Structures & Algorithms. Also helped students improve their programming abilities by assisting them with their academic projects.