

# Gargeya Akhilram Durgempudi (Akhil)

Full Stack Developer | Java | Python | React | Azure Certified

☎ (346)-626-9449

dgakhilram@gmail.com

<https://dakhilram.github.io/portfolio>

[www.linkedin.com/in/akhilram-durgempudi](https://www.linkedin.com/in/akhilram-durgempudi)

## EDUCATION & CERTIFICATIONS

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

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

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

## TECHNICAL SKILLS

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

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

**Software/Tools:** FlutterFlow (UI Development), Firebase, Figma, Microsoft Azure, JIRA, Git, GitHub, VS Code, Eclipse, Google Colab, Tomcat.

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

**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 and responsive UI 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), Machine Learning (Model Development), Matplotlib (Data Visualization), PostgreSQL (Database), REST API (API Integration), Git (Version Control), Gmail-SMTP (Email Notifications), GitHub (Project Frontend deployment), Render (Project Backend deployment), FlutterFlow (Prototyping).

### Shopee – Retail Shopping Platform

- Developed a full-featured e-commerce application using Java and Spring Boot, implementing user authentication, order management, and secure payment handling.
- Redesigned and simplified the user interface following Agile practices to improve usability and streamline user interaction.
- Built robust backend services with RESTful APIs and integrated MySQL for reliable data management.

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

### 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.

### 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.

### 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.