DHEERAJ KANDIKATTU

+1 260-206-4757 | kandikattu.dheeraj@gmail.com | LinkedIn | GitHub

SUMMARY

AI-focused Software Engineer with 3 years of experience building scalable full-stack applications, integrating LLM-powered
automation, and optimizing backend systems. Strong foundation in Java, Angular, PostgreSQL, and cloud-based
deployments. Research experience with IEEE Access publication and hands-on leadership in sustainability-focused
technology projects. Seeking Software Engineering / AI internship roles for Summer 2026.

EDUCATION

Purdue University Indiana,United States

Masters in Computer Science GPA:4.0 Jan 2025 – Dec 2026

Vellore Institute of Technology Chennai, India

Bachelors in Electronics and Communications Engineering GPA:9.29 June. 2018 – May 2022

TECHNICAL SKILLS

Languages : Java, Python, C/C++, SQL (Postgres), JavaScript,Typescript, HTML/CSS, R

Frameworks : Spring Boot,Angular,React,Node.js,Next.js,Docker,AWS(EC2,S3,Lamda),Git,JUnit,RESTful APIs

Concepts : Data Structures, Algorithms,Object Oriented Design(OOP), Distributed Systems, Debugging, SDLC

EXPERIENCE

Waterfield Sustainability Intern Jan 2025 – Present

Environmental Resources Center, Purdue University Fort Wayne, IN, USA

- Leading development of a real-time energy and sustainability dashboard , integrating campus utility data to improve

energy transparency and student engagement.

- Collaborating with Facilities and IT on a Smart Solar Panel System involving sensor-based tracking and actuator-driven

panel positioning to maximize power output.

- Conducting feasibility analysis and architectural design for an AI-supported control system that dynamically adjusts panel

orientation using irradiance and weather datasets.

- Supporting sustainability-focused outreach projects and research to enhance environmental awareness and data accessibility.

Software Development Engineer - I July 2022 – November 2024

Tavant Technologies Bengaluru, India

- Built a full-stack web application using Java , Angular , and PostgreSQL , ensuring smooth functionality and scalability.
- Integrated an AI-powered Image Analysis module into the application to analyze images within appraisal documents,

achieving 98% accuracy through the implementation of advanced prompt engineering techniques.

- Optimized backend rule-engine logic to support nested conditional execution , reducing runtime errors and improving

reliability of large-scale workflows.

- Applied object-oriented principles to refactor legacy modules, improving code reusability and debugging efficiency.
- Collaborated in an Agile development cycle , performing unit testing (JUnit) and CI/CD deployment with Git and

Docker.

PROJECTS

MastodonGpt | Python,NextJs,PostgreSQL,LLMs January 2025 – April 2025

- Built a two-portal system with an admin dashboard to upload webpage links and PDF documents, and a user-facing

portal with an AI chatbot.

- Implemented a Retrieval-Augmented Generation (RAG) pipeline by integrating a vector database to store and

retrieve knowledge from links and documents.

- Engineered document parsing and embedding workflows to convert unstructured PDF and web content into vector

representations for semantic search.

- Developed an intelligent chatbot interface that leverages RAG to deliver context-aware answers by retrieving relevant

data from the knowledge base.

AI Powered Career Management System | Python, NextJS, PostgreSQL January 2025 – April 2025

- Developed an AI-powered career management platform with candidate resume ingestion and a user-friendly admin

portal for streamlined talent management.

- Integrated natural language search functionality enabling admins to query candidate data in plain English,

eliminating the need for complex SQL knowledge.

- Implemented an LLM-driven SQL generation pipeline where admin queries are transformed into optimized SQL

commands, executed on the database, and results displayed dynamically.

- Enhanced recruitment efficiency by combining AI, databases, and intuitive UI to deliver accurate, real-time candidate

search and filtering.

- Developed an AI-powered Image Analysis module to analyse images embedded within appraisal documents,improving

overall accuracy and efficiency.

- Built a document classification workflow module to categorize uploaded documents based on their

metadata,streamlining document management.

PUBLICATIONS

Texture Aware Deep Feature Map Based Linear Weighted Medical Image Fusion Jan 2022 – March 2022

- Developed a novel algorithm to calculate linear weights for fusing medical images from different modalities using feature maps

extracted by a deep learning model VGG-19.

- The fused output image preserves critical details from both input images (e.g., MRI and CT scans).
- Achieved a 15% improvement in contrast and variance-based analysis metrics compared to other image fusion methods.
- The paper is published in IEEE Access journal on 10 Aug 2022