

Keerthana Kodaiarasu

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EDUCATION

California State University - Sacramento

Master of Science in Computer Science | Sacramento, CA

Aug 2021 - Dec 2023

GPA: 3.81/4

Anna University

Bachelor of Engineering in Computer Science and Engineering | Chennai, India

Aug 2015 - Apr 2019

GPA: 3.4/4

SKILLS

Programming: Java, Python, C, TypeScript, HTML5/CSS3, GraphQL, JavaScript (ES6, Redux, Sagas, D3.js), Linux shell script
Database: SQL - MySQL, PostgreSQL, Microsoft SQL Server, Oracle SQL; NoSQL - DynamoDB, MongoDB, Neo4j CQL
Frameworks: Angular, React, Node.js, RESTful API, Django, Flask, Spring Framework, Tensorflow, Keras, Bootstrap
Tools/Platforms: Version Control - Git, GitHub, SVN; IDE - VS Code, PyCharm, Eclipse; Jira, SCRUM/Agile SDLC;
Other: Containerization - Docker, Kubernetes; Cloud - AWS Lambda, AWS AppSync, S3; IaaS - Terraform; ESLint
Software Dev: Web Application, Full-Stack Development, Object-oriented design, Data Structures and Algorithms (DSA)

EXPERIENCE

Software Engineering Intern

Jun 2023 - Dec 2023

Hornblower Group

Westlake Village, CA

- Developed 12+ end-to-end major features including Contract Management, Customer Account, and Ticket purchase flows for the Ticketing and Reservations platform using **React**, **Node.js**, and **AWS** services like **DynamoDB**, **AppSync**, **S3**
- Configured scalable **AWS AppSync** to meet the scaling demands of the system thereby eliminating limit restrictions on the number of **GraphQL APIs** to support continuous and seamless development operations and product flows
- Debugged and updated 21+ complex issues thereby ensuring smooth purchase flows and seamless full-stack data integration
- Worked with **Terraform** to leverage Infrastructure as a Code service to deploy repositories to **AWS Lambda**

Systems Engineer

May 2019 - Aug 2021

Tata Consultancy Services

Chennai, India

- 2+ years of **Full-stack** development experience in **Agile** project planning and delivery lifecycle management SaaS tool
- Collaborated with Product Managers and Market Research teams to brainstorm, design, and prototype 10 product features
- Designed and built 8+ major features and 12+ minor features using **Angular**, **Java Spring Boot**, and **PostgreSQL**
- Devised **RESTful API** to deliver key business functionalities as microservice;
- Experienced in **JSON**, **AJAX** web technologies and Test-Driven-Development (TDD)
- Spearheaded a major feature, leading software evaluations, **code reviews**, and driving the adoption of **unit testing**, making data-informed decisions resulting in a 50% reduction in backlogs with each sprint improving the User Interface/Experiences
- Maximized code performance by **SQL** query optimization and achieved improvement in application's performance by 25%
- On-boarded and mentored a 6-member team of junior developers, fostering a collaborative and cross-functional environment

Teaching Assistant

Jan 2022 - May 2023

California State University - Sacramento

Sacramento, CA

- Facilitated Computer Networks lab sessions for 75+ students and aided professor with course-related tasks
- Mentored and guided 90+ undergraduate students with hands-on experience in programming using **Java**, and **Computer Architecture**; evaluated students' work and provided critical feedback to enhance performance

PROJECTS

Visual Data Analysis for Job Matching using Knowledge Graphs | Python, D3.js, React, MongoDB

- Developed a full-stack interactive recommendation dashboard using React.js and d3.js for recommending suitable jobs to candidates and suitable candidates for jobs based on recommendations from Knowledge Graph modeled using Graph CNN

A Deep Learning Approach to Paraphrase Detection | Python, Tensorflow, Natural Language Processing (NLP)

- Implemented and evaluated deep learning models to detect semantically equivalent paraphrased text for alleviating problems concerning the credibility of original work by using 3 different similarity techniques

A Multi-Modal Deep Learning Model for Fake News Detection | Python, Tensorflow, NLP, CNN

- Built a machine learning model that can classify if a tweet with images is fake or not by concatenating text model trained on GLOVE embedding and corresponding images trained on CNN with a prediction accuracy of 96%

Attention based Human Activity Recognition | Python, Signal processing, Machine Learning

- Designed and built a robust Attention based deep learning model that identifies and classifies seven most common human activities based on WiFi's channel state information (CSI) data as a secure alternative to expensive cameras **Github**

Plant leaf diseases detection using Deep Learning Techniques | Python, Deep Learning

- Engineered a robust model that can classify and distinguish between healthy and diseased leaves using an ensemble of deep learning techniques for timely detection of pests and crop damages increasing the agricultural yield up to 40%

Other Projects | Python, IoT, Deep Learning, Image Processing, Mobile Application

- Other projects include Mitigation of Human Elephant Conflict with IoT, Smart Road Systems using IoT Sensor networks