

Umesh Chandra Karagatla

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About Me

A Computer Science graduate with a keen interest in Full Stack Development and DevOps, known for relentless passion for learning and a collaborative team spirit.

Technical Skill Set

Programming Languages:	Java, Python, Golang, C
Database & Servers:	MySQL, MongoDB, PostgreSQL, Oracle Relational DBMS
Software Framework:	Spring Boot, JUnit, Mockito, Django, .Net, ADO.Net
Web Development:	Typescript, ReactJS, NodeJS, Angular, JavaScript, HTML, CSS
Containers/Cloud:	AWS EC2, AWS ECS, Fargate, Docker, Kubernetes
Tools:	IntelliJ, VS Code, Jenkins, Git

Work Experience

Web Developer Intern, Hopnet Communications LLP, India Sep 2021 – Apr 2022

- Developed cross-browser and multi-platform compatible UI, resulting in a 20% increase in website usability and a 15% reduction in user complaints related to accessibility issues.
- Implemented 5 custom Angular directives for input validation, resulting in a 40% reduction in form submission errors and significantly improving the overall data accuracy.
- Optimized back-end integrations of 5 services led to 30% reduction in load time.
- Composed approximately a quarter to a third of the front-end functional tests using selenium and numerous unit tests on the backend with node.js, resulting in less vulnerability and more confident deployment.
- Managed bugs, user complaints, requests, permissions, and other issues as bug master and admin.
- Resolved 20 website issues promptly, resulting in 90% increase in website uptime, 80% decrease in user complaints and overall user satisfaction.
- Created and maintained a comprehensive software documentation, facilitating efficient knowledge transfer, and ensuring seamless collaboration within the team and quick onboarding.
- Collaborated within an 8-member agile software development team, consistently delivering efficient results during each sprint, and actively contributing to continuous code enhancements.

Software Engineer, EAMVEY, India Aug 2020 – June 2021

- Created interactive web applications using React JS, JavaScript, and Bootstrap.
- Enhanced readability and performance of the existing program by 20% using java lambda expressions and hashing techniques.
- Optimized SQL queries and built python scripts to automate the applications.
- Wrote well-designed, testable, and efficient code satisfying various project's technical requirements.
- Implemented stored procedures and functions on Production MySQL database resulting in faster results.
- Participated in many collaborative workspaces, enhancing communication and leadership skills; also contributed to the thorough completion of the software development lifecycle (SDLC) using Agile methodologies.
- Assisted in troubleshooting defective code, root cause analysis on production issues, and provided timely fixes.
- Worked and got familiar with Linux based system and kernel framework.
- Acquainted with Continuous Integration and Version Control tools like Git and Jenkins.

Academic Projects

UTA MS CS Website (HTML, CSS, React, PHP, Node.js, Laravel, MongoDB) Aug 2023 – Dec 2023

- Developing a web application as a part of my Web Development Course, using HTML/CSS/JavaScript – React.js, node.js, PHP, Laravel and MongoDB.
- This platform measures performance of MS CS Academic Program and is hosted on UTA cloud.

Portfolio Website June 2023 - July 2023

- Created my portfolio website from scratch using React and Next.JS, TypeScript, Tailwind CSS and Framer motion.
- Hosted it using Vercel.

Cloud Native Monitoring Application (Python, Kubernetes, AWS) May 2023 – June 2023

- Created a monitoring web application using Python with Flask and psutil.
- Containerized the application with Docker and locally built the image.
- Established an AWS Elastic Container Registry (ECR) using Python's Boto3 module and pushed the image.
- Deployed the application on an AWS Elastic Kubernetes Service (EKS) cluster with nodes.

CIFAR-10 image classifier using Convolution Neural Network (TensorFlow, PyTorch, Keras) Mar 2023 – Apr 2023

- Increased the number of layers and epochs to enhance the model's performance.
- Expertly trained the neural networks model using the cross-entropy loss function and SGD optimizer.
- Achieved a strong performance, demonstrating an accuracy of around 65% on the dataset.

Analyzing Disneyland Reviews using Sentiment Analysis (Machine Learning, NLP, LSTM) Jan 2023 – Mar 2023

- Built a machine learning model utilizing the Long Short-term Memory (LSTM) algorithm to classify reviews into three categories: positive, negative, and neutral.
- Visualized the results using word cloud and heatmaps to identify the most common positive, negative, and neutral phrases.
- Achieved an overall accuracy of 84% and an F1 score of 0.81 on the testing dataset.

Certifications

- Full Stack Developer – Java, Restful WS, JSP, Spring by Mosh
- Algorithm Toolbox and Data Structures by Neil Rhodes, Coursera, University of California San Diego.

Education

Master’s in Computer Science [August 2022 – May 2024] **GPA: 4/4**
The University of Texas at Arlington, Arlington, Texas, USA
Coursework: Web Data Management, Software Engineering, Cloud Computing, Design and Analysis of Algorithms, Data Analysis and Modelling Techniques, Data Mining, Artificial Intelligence, Neural Networks, Machine learning, Numerical methods

Bachelor of Technology in Computer Science and Engineering [August 2016 – August 2020] **GPA: 3.8/4**
CVR College of Engineering, Hyderabad, India
Coursework: SDLC, Design Patterns, Object-Oriented Programming, Web Programming, Database Management Systems, Data Structures, Computer Networks, Operating Systems, Computer Architecture

Extracurricular

- Active member for the Google Developer Student Club at The University of Texas at Arlington participating in various tech-focused projects and events.
- Served as a Board Member for the College Chapter of the Computer Society of India (CSI) and conducted technical workshops, and talks, and created numerous programming quizzes during my undergrad.