

**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 Skillset**

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

**Work Experience**

<b>Web Developer Intern, Hopnet Communications LLP, India</b>	<b>Sep 2021 – Apr 2022</b>
<ul style="list-style-type: none"><li>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.</li><li>Implemented 5 custom Angular directives for input validation, resulting in a 40% reduction in form submission errors and significantly improving the overall data accuracy.</li><li>Optimized back-end integrations of 5 services led to 30% reduction in load time.</li><li>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.</li><li>Managed bugs, user complaints, requests, permissions, and other issues as bug master and admin.</li><li>Resolved 20 website issues promptly, resulting in 90% increase in website uptime, 80% decrease in user complaints and overall user satisfaction.</li><li>Created and maintained a comprehensive software documentation, facilitating efficient knowledge transfer, and ensuring seamless collaboration within the team and quick onboarding.</li><li>Collaborated within an 8-member agile software development team, consistently delivering efficient results during each sprint, and actively contributing to continuous code enhancements.</li></ul>	

**Academic Projects**

<b>UTA MS CS Website (HTML, CSS, React, PHP, Node.js, Laravel, MongoDB)</b>	<b>Aug 2023 – Present</b>
<ul style="list-style-type: none"><li>Developing a web application as a part of my Web Development Course, using HTML/CSS/JavaScript – React.js, node.js, PHP, Laravel and MongoDB.</li><li>This platform measures performance of MS CS Academic Program and is hosted on UTA cloud.</li></ul>	
<b>Cloud Native Monitoring Application (Python, Kubernetes, AWS)</b>	<b>May 2023 – June 2023</b>
<ul style="list-style-type: none"><li>Created a monitoring web application using Python with Flask and psutil.</li><li>Containerized the application with Docker and locally built the image.</li><li>Established an AWS Elastic Container Registry (ECR) using Python's Boto3 module and pushed the image.</li><li>Deployed the application on an AWS Elastic Kubernetes Service (EKS) cluster with nodes.</li></ul>	
<b>CIFAR-10 image classifier using Convolution Neural Network (TensorFlow, PyTorch, Keras)</b>	<b>Mar 2023 – Apr 2023</b>
<ul style="list-style-type: none"><li>Increased the number of layers and epochs to enhance the model's performance.</li><li>Expertly trained the neural networks model using the cross-entropy loss function and SGD optimizer.</li><li>Achieved a strong performance, demonstrating an accuracy of around 65% on the dataset.</li></ul>	
<b>Analyzing Disneyland Reviews using Sentiment Analysis (Machine Learning, NLP, LSTM)</b>	<b>Jan 2023 – Mar 2023</b>
<ul style="list-style-type: none"><li>Built a machine learning model utilizing the Long Short-term Memory (LSTM) algorithm to classify reviews into three categories: positive, negative, and neutral.</li><li>Visualized the results using word cloud and heatmaps to identify the most common positive, negative, and neutral phrases.</li><li>Achieved an overall accuracy of 84% and an F1 score of 0.81 on the testing dataset.</li></ul>	

**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**

<b>Master’s in Computer Science [August 2022 – May 2024]</b>	<b>GPA: 4/4</b>
<i>The University of Texas at Arlington, Arlington, Texas, USA</i>	
<b>Coursework:</b> 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	
<b>Bachelor of Technology in Computer Science and Engineering [August 2016 – August 2020]</b>	<b>GPA: 3.8/4</b>
<i>CVR College of Engineering, Hyderabad, India</i>	
<b>Coursework:</b> 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.