

Siva Sai Pavan Karthik Uppalapati

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EDUCATION

University of Tennessee, Tickle College of Engineering, Knoxville, Tennessee
MS in Computer Science,

August, 2024-May,2026

GITAM University, Visakhapatnam, AP, INDIA
BS in Computer Science, Degree

June, 2019 - June, 2023

TECHNICAL SKILLS

Computer:

- Programming Languages: Python, C
- Operating Systems: Windows, MacOS
- Technical Skills: Software Engineering, Database Management Systems (DBMS), SQL, Web Development
- Tools: Amazon Web Services (AWS), Microsoft Office, WordPress, Wappalyzer, My SQL, Apache.

Certifications:

- Amazon Web Services (AWS) Workshop – GITAM University
- Database Management Essentials – University of Colorado, Boulder (Coursera)
- Technical Support Fundamentals – Google Certification
- Google Data Analytics Professional Certificate – Google Certification

Language: English, Hindi, Telugu.

Work Experience

Brain O Vision, *Web Developer Intern*, Hyderabad, TS, INDIA

May, 2022-July, 2022

- Being a Team-Lead I Collaborated with a 4 cross-functional technical team of developers and designers who deal with different part like front-end and back-end development of the project to create a user-friendly website for purchasing pet food & for Grocery store.
- Capable of using Wappalyzer and WordPress to create innovative design and infrastructure solutions, while effectively employing database insights to improve project outcomes.
- Completed 2 projects in responsive web design and cross-browser compatibility.

Engineering projects & Research

Diabetes 130 US hospitals for years 1999-2008 (Hospital Readmission)

August 2024 – December 2024

- Developed and implemented machine learning techniques to analyze inpatient data, enabling the early identification of diabetic patients at higher risk of readmission, which facilitated tailored interventions to enhance patient care.
- Focused on improving blood glucose management protocols for hospitalized patients with diabetes, addressing deficiencies in care that can lead to suboptimal health outcomes and increased readmission rates.
- Aimed to enhance patient outcomes and optimize hospital resources through data-driven decision-making, demonstrating a commitment to improving quality of care in hospital settings

Comparative Analysis of Classical and Quantum Machines with GITAM university December, 2022 – April, 2023

- Developed comprehensive documentation on quantum key distribution methods that identified three critical vulnerabilities within existing protocols; findings led to fixes addressing the top causes of potential cyber threats.
- Implemented innovative quantum key distribution techniques, enhancing secure data transmission protocols and achieving a 30% increase in resilience against potential cyber threats within the web development framework.
- Conducted a detailed comparative assessment of classical and quantum cryptography methodologies, identifying three superior algorithms that strengthened the security framework for communication protocols in a cutting-edge web development environment.

CP-ABE On Cloud with GITAM university

June, 2022 – November, 2022

- Developed and implemented an advanced cryptographic model leveraging Dynamic Key Generation and QH-CPABE, enhancing data security and access control for cloud storage solutions.
- Achieved significant improvements in computational speed and memory efficiency while ensuring robust protection against unauthorized access in cloud environments Like AWS S3 buckets, we used AWS cloud platform to test the efficiency.
- Upgraded data transmission security by 50% incorporating quantum systems into cryptographic protocols, improving and establishing new benchmarks in data security.

Basic Railway Reservation System (DBMS Study Project) with GITAM University

December, 2021 – April, 2022

- Designed and deployed customer satisfaction surveys focused on the online reservation experience, directly resulting in Improved customer satisfaction levels by 60%.
- Boosted customer satisfaction through strategic feedback collection and actionable insights.
- Led the optimization of database management systems, achieving a 30% reduction in data retrieval times and significantly improving overall data accessibility and performance.

Research & PROFESSIONAL ACCOMPLISHMENTS

Publications:

- “A Dynamic Key Generation Scheme to Implement CP-ABE Standard Over Large Cloud Data” – International Journal of Computer Science (IJCS)
- “Comparative Analysis of Classical and Quantum Machines”-IEEE

Course & Certifications

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| • Introduction to Big Data with Spark and Hadoop, IBM | Apr, 2023 |
| • Operating Systems and you: A power user, Google via Coursera | Feb, 2021 |
| • Technical Support Fundamentals, GOOGLE | Dec.2020 |
| • TCP/IP and advance topics, UC via Coursera | Oct, 2020 |
| • Introduction to Artificial Intelligence (AI), IBM via Coursera, | Sept, 2020 |

Achivements

Vols Shop; The University of Tennessee Knoxville.

- Currently working as a Student Floor Manager.
- Focusing on the Customer satisfaction
- Works on register, stock and handling customers.

Kalakruthi, GITAM University.

- Worked as Student Manager on events.
- Role is all about managing all the activates at the event, Finding Sponsors.
- Mainly Gathering talented and interested Students.