

# DINESH YADAV

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## EDUCATION

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| <b>Georgia Institute of Technology</b>   | Atlanta, GA, USA     |
| <i>Master of Science, Computer Science (MScS) – (Computing Systems &amp; Machine Learning)</i> | Aug 2024 – Dec 2025  |
| <b>Bharati Vidyapeeth College of Engineering</b>   | Pune, IN             |
| <i>Bachelor of Engineering, Electronics &amp; Telecommunications (B.Tech ECE)</i>              | Aug 2015 – June 2019 |
| <b>Bharati Vidyapeeth</b>  | IN                   |
| <i>Diploma in Network Security (Dual Degree)</i>   | Aug 2015 – June 2018 |

## EXPERIENCE

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| <b>Johnson Controls</b>  | May 2022 – Aug 2024  |
| <i>Software Engineer</i>   | Gurgaon, IN          |
| <ul style="list-style-type: none"><li>Worked on development of a modern Access Control solution as replacement for their existing leading product for building automation (KANTECH EntraPass &amp; CCURE)</li><li>Built backend core services using the Spring Boot to design a cloud based multi-tenant SaaS distributed system</li><li>Collaborated with the architect to integrate search engine using Elasticsearch for enhanced search functionality</li><li>Implemented global exception handling, effective testing strategies, and Flyway DB migration, contributing to improved code structure and maintainability</li><li>Designed, implemented, and tested RESTful APIs, including API documentation</li><li>Mentored new joiners, conducted code reviews, testing, addressing vulnerabilities, and codebase optimizations</li></ul> <p>Tech Stack: Java, Spring Boot, Angular, Postgres, Pub-Sub, MQTT, C#, Docker, Kafka, Github Actions, Elasticsearch</p> |                      |
| <b>Amdocs (AT&amp;T)</b>   | Feb 2020 – May 2022  |
| <i>Software Developer</i>  | Gurgaon, IN          |
| <ul style="list-style-type: none"><li>Worked on development, modernization and cloud migration of on-prem legacy applications to cloud services for AT&amp;T</li><li>Modernized two telecom billing application by migrating from a monolithic JSP/Servlet based architecture to a cloud native two-tier microservices-based system using Spring Boot and React</li><li>Enhanced operational efficiency by over 90% by automating manual unix server checks for file presence and health status along with other automations using Python, as part of the SRE team.</li></ul>  |                      |
| <b>IT Bodhi (EdTech)   Machine Learning Intern</b>   | July 2019 – Dec 2019 |
| <ul style="list-style-type: none"><li>Worked on data science, machine learning and deep learning projects, including classification, computer vision, NLP, and various supervised and unsupervised learning techniques</li><li>Developed a custom Question-Answering Chatbot from scratch for a FinTech client as part of the internship</li></ul>   |                      |
| <b>Legalsalah (Fintech Startup)   Web Developer Intern</b>   | Jan 2019 – Apr 2019  |
| <ul style="list-style-type: none"><li>Rebuilt the content management system (CMS) for enhancing the blogs section with new editing tools for improved productivity and user experience (javascript, php)</li><li>Redesigned authentication and implemented role-based access and authorization to strengthen CMS security</li></ul>  |                      |

## TECHNICAL SKILLS

**Programming:** Java, Python, C/C++, C#, SQL, JavaScript, HTML  
**Frameworks:** Spring Boot, JUnit, Mockito, Node.js, Express.js, Next.js, React.js, Android  
**Databases:** PostgreSQL, MySQL, SQLite, NoSQL MongoDB  
**Software & Tools:** Git, IntelliJ IDEA, Visual Code, CI/CD, Devops, Docker, AWS, Azure, GPC, IoT, Redis, Jenkins, Visual Studio, Jupyter, Linux, Unix, Google Colab, Anaconda, JIRA, Confluence  
**Libraries:** pandas, NumPy, matplotlib, scikit-learn, TensorFlow, PyTorch, Keras, MQTT, LangChain (AI, LLM)

## PROJECTS

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| <b>Multi User Blogging platform   Node.js, MongoDB, Express.js, Next.js, REST API, Nginx, AWS</b>   |
| <ul style="list-style-type: none"><li>A multi-user supported SEO optimized blogging web application (SPA) based on MERN stack with SSR support</li><li>Offers an intuitive and seamless user experience, allowing multiple users to create and manage their blogs efficiently</li><li>Hosted on an Amazon AWS EC2 instance, providing reliable and scalable infrastructure for the web application</li><li>Session Management - JWT authentication - SEO Optimized Server Side Rendered Application</li></ul> |

## Relational Database Implementation | C++, Data Structures & Algorithms

Aug 2024 - Present

- Developing a fully functional relational database from scratch using C++17
- Implementing core components: external sorting, buffer management, B-Tree indexing, and query execution engine
- Focusing on advanced C++ techniques and database low-level system design

## Mini-Internet: Autonomous System Network | Computer Networks, Network Routing, Security Aug 2024 - Present

- Designing a scaled-down Autonomous System (AS) network, simulating real-world Internet infrastructure
- Configuring OSPF for intra-domain routing and BGP for inter-AS communication
- Implementing BGP policies to model business relationships between ISPs

## Job Offer Comparison Android App | Java, Android Studio, SQLite

- Designed an Android app to compare job offers against a current job, enabling users to make informed career choices
- Allows users to set custom weights for factors like salary, bonuses, career growth, cost of living, and other benefits to accurately calculate and rank job offers
- Facilitates side-by-side job comparisons with detailed breakdowns, allowing users to easily evaluate offers and select the best opportunity based on their personal priorities

## Theremin: Gesture-Controlled Electronic Music Synthesizer | Electronics

- Developed a Theremin using radio antennas to detect proximity and generate musical tones without physical contact
- Utilizes an radio antenna as a proximity sensing device with variable capacitance to detect the presence of a human body
- Enabled interactive music creation through hand gestures, showcasing innovative use of proximity sensing technology

## CERTIFICATIONS

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- Azure Developer Associate (AZ-204)
- AWS Certified Cloud Practitioner (CLF-C01)
- Microsoft Azure Fundamentals (AZ-900)
- Foundational C# with Microsoft
- Robotics & Embedded Systems

## BLOGS

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- **CNN vs MLP for Image Classification** | Published in Analytics Vidhya - Nov 2019  
Explaining why Convolutional Neural Networks (CNNs) are favored over Multilayer Perceptrons (MLPs) for image classification.
- **Beginner's Guide to RNN & LSTMs** - Dec 2019  
An introductory guide to RNNs and LSTMs, explaining their ability to handle sequential data.
- **Django Essentials: A Beginner's Introduction** - Jan 2020  
An intro to Django basics, including its architecture and key features for web development.