

# PRABHAT SUMAN

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## EDUCATION

**Master of Science in Computer Science, Indiana University Bloomington** August 2022 - May 2024  
Coursework: Computer Network, Distributed Systems, Software Engineering, Applied Machine learning, CGPA: 3.81/4  
Applied Database Technologies, Elements of Artificial Intelligence, Applied Algorithms

**Bachelor of Technology in Electronics & Communication Engineering, IIT Ranchi** August 2017 - May 2021  
*Honors: Awardee of the Best Student Shield* CGPA: 8.66/10.00

## TECHNICAL SKILLS

**Programming Languages:** Python, JavaScript, Java, HTML, C, C++  
**Web Development:** React JS, Node.js, Express.js, Angular, jQuery  
**Databases and Version Control:** Firebase, MySQL, MongoDB, Oracle Server, NoSQL, DynamoDB, Git, Github, Jenkins  
**Technologies:** Kubernetes, Azure, JIRA, ELK, Docker, Powershell, Visual Studio, Heroku, Linux  
**Certification:** Azure Administrator Associate, Azure Fundamentals  
**Network Protocols:** TCP, TLS, UDP, Socket, SMTP, FTP, Telnet, HTTPS

## WORK EXPERIENCE

**Graduate Teaching Assistant, Indiana University Bloomington** August 2023 - Present  
*Distributed Systems (Spring 2024), Engineering Cloud Computing (Fall 2023)*

- Guided and mentored **50+** students with complex distributed systems concepts and practical implementations.
- Conducted hands-on labs on **AWS and Google Cloud Platform**, equipping students with practical cloud skills.
- Teamed up with the Professor to design and present interactive lectures, leading to a 20% boost in student engagement and a **10% improvement** in course satisfaction scores.
- Topics: Map-Reduce, Distributed Key-Value Store, TCP, UDP, Totally Ordered Multicast, MemCache, Kafka.

**Software Developer, Tata Consultancy Services Ltd. Bangalore, India** July 2021 - July 2022

- Implemented new features in **mobile application** that improved forward and backward links between sales and service. These enhancements boosted performance, aiding the **reduction in app maintenance costs** by 10%.
- Resolved **over 50 complex technical issues** in collaboration with cross-functional teams, ensuring prompt resolution.
- **Received a Learning Achievement Award** for demonstrating exceptional technical knowledge and contributing to the successful delivery of a critical project, resulting **5% increase** in app responsiveness.
- Tools: Cordova, Jenkins, GIT, JavaScript, jQuery, HTML, iOS, AWS, CI/CD Pipeline Development.

**Software Engineering Intern, Truminds Software Systems Pvt. Ltd. Bangalore, India** January 2021 - June 2021

- Collaborated on an innovative team project to create an online exam proctoring platform using ML algorithms for video and image proctoring, achieving an **80% reduction** in cheating incidents and enhancing student satisfaction.
- Trained and refined predictive models, achieving heightened accuracy and superior performance metrics.
- Tools: Machine learning, TensorFlow, Keras, OpenCV, Node.js, MongoDB, Python, Elasticsearch, Logstash, Kibana.

**Software Engineering Intern, Truminds Software Systems Pvt. Ltd. Gurugram, India** April 2020 - June 2020

- Designed the Employee Management Platform's **frontend**, streamlining HR processes for improved efficiency.
- Identified and rectified key technical issues, enhancing user experience and bolstering the reliability of the platform.
- Tools: Java, Spring Boot, PostgreSQL, ReactJS, Unit Testing, Docker, ELK, GIT, Jenkins.

## PROJECTS

**Interview Blogs** - Google Analytics, Azure, Node.js, React, Express, AivenDB. February 2024 - Present

- Developed an interactive website for sharing and viewing **interview experiences**, featuring seamless registration, login, and content posting functionalities for enhanced user convenience.
- Established content filtering, **integrating over 100 job roles, 1,000+ locations across the United States, and 300+ companies** into the search functionality, leveraging SQL and AivenDB for efficient data handling and retrieval.

**Delivery Management System** - Firebase, React.js, Node.js, Azure App Services, Postman. February 2023 - April 2023

- **Led a Scrum team as Scrum Master of five developers** to design and implement a delivery management system.
- Crafted a robust, user-friendly website optimized for order management and **real-time delivery tracking** across FedEx, USPS, and UPS, capable of handling **100+** concurrent customer requests seamlessly.

**Distributed Map-Reduce** - Python, TCP, UDP, ZeroMQ, Server, Client, Socket. February 2023 - April 2023

- Created highly scalable MapReduce framework (Hadoop-inspired) with master and worker nodes.
- Enabled efficient processing of large datasets, achieving a **50% reduction** in data processing time.

**Distributed Key-Value Store** - Sequential, Causal, Custom KV Store, Consistency Models. March 2023 - April 2023

- Designed consistency schemes including **Sequential, Eventual, Linearizability, and Causal Consistency**, demonstrating advanced understanding of data consistency in distributed systems.
- Achieved **scalability and performance**, preparing the system for large-scale data storage and retrieval demands.

**Predicting Loan Defaults** - Scikit-learn, Pandas, Tensorflow, Pytorch, Matplotlib, Seaborn.

- Spearheaded a team of **4** to develop a model identifying the credibility of a person to obtain a home loan.
- Attained an impressive AUC score of **0.7424** using the logistic regression model.