

Achyut Tiwari

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Website • LinkedIn • Google Scholar • GitHub

EXPERIENCE

TATA Consultancy Services, Bangalore, Karnataka, India

- Data Scientist Oct 2023 – Current
 - Developed regression models for a global application (DFOS), enabling a leading CPG manufacturer to accurately predict time-to-failure of bottleneck machines, minimizing unplanned downtime and improving operational efficiency.
 - Developed a real-time downtime prediction system for bottleneck machines across filling and packing lines at the shift level, optimizing maintenance schedules and reducing production disruptions.
 - Designed and implemented tailored Power BI reports to streamline data analysis, reduce noise, and increase user engagement, significantly improving the application's overall adoption and effectiveness.
 - Identified high-impact SKU's responsible for major downtime issues, leading to strategic interventions that saved the company millions of euros across 100+ factories worldwide.

EDUCATION

Jaypee University of Information Technology, Solan, Himachal Pradesh, India

B.Tech in Computer Science and Engineering

Jul 2019 – May 2023

- Cumulative GPA: 7.9/10

Saint Xavier's Senior Secondary School, Hardoi, Uttar Pradesh, India

- 10+2 in PCM with Computer Science
- Chairman of Disciplinary Committee.

May 2016 – May 2018

INTERNSHIP EXPERIENCE

SynchSoft Technologies, UP, India

- Devops Intern, Production Team
- Orchestrated CI/CD for diverse projects.
- Dockerized web & Android apps; managed via Kubernetes.

Jun 2022 – Jul 2022

PUBLICATIONS

JOURNALS

- [1] A. Tiwari, A. Chugh, and A. Sharma, "Ensemble framework for cardiovascular disease prediction," *Journal of Computers in Biology and Medicine*, Vol. 146, May 2022 [Impact Factor- 7.7]
- [2] A. Tiwari, A.K. Gupta and T. Gupta, "A Robust Approach to Shear Strength Prediction of Reinforced Concrete Deep Beams using Ensemble Learning with SHAP Interpretability," *Soft Computing*, 1-23 Dec 2023 [Impact Factor- 4.1].
- [3] A. Gupta, S. Gowda, A. Tiwari and A.K. Gupta, "XGBoost-SHAP Framework for Asphalt Pavement Condition Evaluation," *Construction and Building Materials*, 426 Apr 2024 [Impact Factor- 7.4].
- [4] R. Mohana, A. Tiwari, A. Pachauri and A. Sharma, "Intelligent Load Balancing of User Requests from IoT Devices in a Fog Environment," Mar 2023 [Under Review].

PATENT

- [1] A.K. Gupta, and A. Tiwari, "Unified Pavement Condition Assessment System," *Indian Patent*, Application Number: 202311079226, Status- Published, Dec 2023 (Patent Licensed to: Jaypee University of Information Technology).
- [2] A.K. Gupta, and A. Tiwari, "A SYSTEM AND A METHOD TO PREDICT SOIL LIQUEFACTION RISK USING LARGE LANGUAGE MODEL," *Indian Patent*, Application Number: 202511013466, Status- Published, Feb 2025 (Patent Licensed to: Jaypee University of Information Technology).

BOOK CHAPTER(S)

- [1] A. Tiwari, A. Chugh, and A. Sharma, "Uses of artificial intelligence with human-computer interaction in psychology, in: Innovations in Artificial Intelligence and Human-Computer Interaction in the Digital Era," *Intelligent Data-Centric Systems, Academic Press, 2023, pp. 173–205.*, Jul 2023 .

OTHERS

- [1] A. Tiwari, V.K. Sehgal, and S. Sharma, “Jaypee University of Information Technology Siam Student chapter celebrates successful establishment. ”, SIAM News. May 2023.
- [2] A. Tiwari and Ashok Kumar Gupta, “Ensemble Learning for Structure Longevity”, SIAM News Blog. Sep 2023.
- [3] A. Tiwari, “Risk, Randomness, and the Power of the Lindy Effect”, SIAM News Blog. Mar 2024.

AWARDS & HONOURS

- Society for Industrial & Applied Mathematics (SIAM) Travel Awards(Funding)–\$800 Nov 2022
Selected as Student chapter representative to SIAM Conference of CSE organized at Amsterdam.
- Honorary President & Chairman of SIAM JUIT Feb 2023
For Outstanding Leadership in the founding tenure.

PROFESSIONAL AFFILIATIONS

Society for Industrial & Applied Mathematics,
Philadelphia, PA 19104 USA

- Nominated Member- 020990506 2022 – Present

Association for Computing Machinery,
New York, NY, USA

- Member- 5377283 2022 – Present

CAMPUS ACTIVITIES

Society for Industrial & Applied Mathematics, Jaypee University of Information Technology

- Founding President Sep 2022 – Feb 2023
 - Chairman of the Executive Committee. Founded the 6th SIAM Student Chapter of India.
 - Increased SIAM members from 5 to 70.
 - Started Distinguished Speaker Seminar under SIAM Lecture Initiative.
 - Represented the chapter on multiple International forums.

Alumni Committee, Jaypee University of Information Technology

- Secretary Oct 2021 – Apr 2022
 - Headed various JUIT alumni affairs division tasks including hosting various Alumni Talks.
 - Increased Placement offers by 10% in year 2022-23. Proposed Distinguished Alumni Awards to the Academic Council.

Procurement & Event Management Committee, Jaypee University of Information Technology

- Coordinator Oct 2021 – Sep 2022
 - Headed Procurement, Sanctions & Event Management for the official student governing body
 - Procured Items worth of 5 lakh INR.

LANGUAGES

- Hindi: Native language.
- English: Fluent (speaking, reading, writing).

SKILLS

L^AT_EX, Python, CPP, SQL, Kubernetes, Docker, Adobe Photo shop, Machine Learning, OOPS.

INTERESTS

Indic History, Linguistics, Economics.

REFERENCES

- **Prof. (Dr.) Ashok Kumar Gupta**
Professor & Dean (Academics & Research) at the Jaypee University of Information Technology
Email: ashok.gupta@juit.ac.in
- **Prof. (Dr.) Vivek Kumar Sehgal**
Professor & HoD of Computer Science & IT at the Jaypee University of Information Technology
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- **Dr. Aman Sharma**
Assistant Professor of Computer Science at the Jaypee University of Information Technology
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- **Dr. Ravindara Bhatt**
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[CV compiled on 2025-03-17 for IISc]