

Harshal Dhake

Software Engineer & Researcher

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EDUCATION

National Institute of Technology Karnataka, Surathkal (NITK)

July 2019 – May 2023

Bachelor of Technology in Electrical and Electronics Engineering

- CGPA: 9.19 / 10
- Class Position: 5 / 122
- Relevant Coursework: C Programming, Machine Learning Theory

National Institute of Technology Karnataka, Surathkal (NITK)

July 2019 – May 2023

Minors in Computer Science Engineering

- CGPA: 9.20 / 10
- Relevant Coursework: Data Structures and Algorithms, Database Management Systems, Operating Systems, Software Engineering, Machine Learning

PROFESSIONAL EXPERIENCE

Software Engineer | Visa Inc.

Bangalore, India | June 2023 – Present

- Developed JS SDKs to enable clients to provision cards to multiple digital wallets.
- Improved traceability in a large client-facing application by developing and integrating APIs for auditing.
- Presented technical demonstrations of solutions developed to respective product owners & stakeholders.
- *Technologies Used:* Typescript, JavaScript, React, Spring, Java

Software Engineering Intern | Visa Inc.

Bangalore, India | May 2022 – July 2022

- Improved life-cycle management processing time of white-labelled mobile solutions, from 2 weeks to under 5 minutes by architecting end-to-end pipeline.
- *Technologies Used:* Jenkins, Shell Script, Spring, Java, Artifactory

PUBLICATIONS

Kosmopoulos, P., **Dhake, H.**, et.al, (2024). *Ray-Tracing modeling for urban photovoltaic energy planning and management*. Applied Energy, 369, p.123516. (<https://doi.org/10.1016/j.apenergy.2024.123516>)

Kosmopoulos, P., **Dhake, H.**, et. al, (2024). *Multi-Layer Cloud Motion Vector Forecasting for Solar Energy Applications*. Applied Energy, 353, p.122144. (<https://doi.org/10.1016/j.apenergy.2023.122144>)

Dhake, H., et. al, (2023). *Algorithms for Hyperparameter Tuning of LSTMs for Time Series Forecasting*. Remote Sensing, 15(8), p.2076. (<https://doi.org/10.3390/rs15082076>)

PROJECTS

Scene Description for Visually Impaired | Python, YOLO, CV2

March 2022

- Constructed a pipeline to convert video to audio spatial context for blind people and compute distance of the obstacle

MyConnect | React, Node.js, Express, GraphQL, MongoDB

January 2022

- Developed a full-stack application allowing users to post, reply and react to user stories.
- Implemented JSON web token authentication and authorization technique for website access security.
- Utilised GraphQL queries to define and regulate API requests and data transmitted.

Inventory Control Management System | Node.js, Express, JavaScript, SQL

July 2021

- Designed SQL queries for managing employees, inventory and clients and generating invoices using Stored Procedures and Triggers.
- Developed Node.js application using embedded JavaScript HTML pages to manage the database.

TECHNICAL SKILLS

C++, JavaScript, Typescript, Java, Python, HTML, CSS, SQL, React, Node.js, Spring, Git, Artifactory, Jenkins

ACHIEVEMENTS

Project Leader, in Scene Description for Visually Impaired Association for Computing Machinery, NITK

2021

Best Outgoing Student, amongst batch of 80 students City Pride Junior College of Science & Commerce

2019

LIC Student of the Year, amongst batch of 80 students City Pride School

2017