

VIBHAV INNA KEDEGE

MSc Embedded Systems (Honours), BSc Electrical Engineering

in [ikvibhav \(LINK\)](#) [Personal Website](#) [ikvibhav \(LINK\)](#)
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📍 Rotterdam, The Netherlands

- Date of Birth: 27th July 1995
- Nationality: Indian & Dutch Permanent Resident



PROFESSIONAL EXPERIENCE

Alfen N.V.

DevOps Software Engineer | R&D Department

📅 Nov 2023--Ongoing 📍 Almere, The Netherlands

- Design features on a software system for hardware in the loop (HIL) testing of Electric Vehicle Charging Station Firmware using **Python**, Jenkins, Docker and Azure.
- Implement features on software systems that enable data-driven decision making using **Python**-FASTAPI, SQL and Grafana
- The Impact - Implement software systems that runs 2000+ HIL tests every night and has reduced the time of software delivery from 12 weeks to 2 weeks.

KPN (via Capgemini)

Big Data Analyst | In-Home Device analytics team

📅 Oct 2021--Oct 2023 📍 The Hague, The Netherlands

- Implemented features to monitor and analyse internet quality of KPN internet devices across the Netherlands using Spark, Scala, **Python** and Tableau.
- Implemented an MLOps system to predict customer satisfaction using health metrics from KPN routers.
- The Impact - Analysed data from 1 Billion internet devices that ensured stable WiFi quality and reduced churn rate at KPN.

Agni AI

Machine Learning Consultant

📅 Mar 2023--Jul 2023 📍 Delft, The Netherlands

- Designed an MLOps software solution to regularly train computer vision object detection (Yolov8) and image segmentation models (SAM) using **Python**.
- The Impact - A startup (XOSight BV) uses this software solution to train the computer vision models daily with around 100K+ Images.

Alstom Transport

System Engineer - Networks | Train Control Department

📅 Jul 2017--Jul 2019 📍 Bangalore, India and Sydney, Australia

- Implemented Ethernet Network based Train Control & Monitoring Systems (TCMS) on Autonomous Trains under a Model Based Design (MBD) framework.
- Performed functional testing and validated train control software on Indian and Australian operational metro train lines.
- The Impact - Demonstrated a 90% pass percentage of Network Functionality, 3 months ahead of schedule.

PERSONAL STATEMENT

'A proactive and goal oriented professional with 5+ years of experience in Python Software Design, Linux Systems, Big Data Analytics and AI, who enjoys solving complex problems in Agile teams'

EDUCATION

Delft University of Technology

MSc Embedded Systems (Honours)

📅 2019 - 2021 📍 Delft, Netherlands

- Specialisation - Robotics and Artificial Intelligence (AI).
- Thesis - "Multi Robot Exploration and Planning in limited communication environments" ([Link](#)).
- Published at ICAART 2022 ([Link](#)).

National Institute of Technology
Karnataka (NITK-Surathkal)

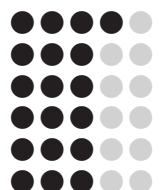
Bachelor of Technology, Electrical and
Electronics Engineering

📅 2013 - 2017 📍 Mangalore, India

- Specialisation - Embedded Software
- Thesis - "Multiple Interface Automation using Distributed Embedded Devices" ([Link](#))

TECHNICAL SKILLS

Python
Software System Design
Linux/Bash
C++
Jenkins
Git



CERTIFICATIONS

- Software Design and Architecture Specialization ([Ongoing](#))
- Google Advanced Data Analytics Specialization ([LINK](#))
- DeepLearning.AI TensorFlow Developer Specialization ([LINK](#))
- Professional Scrum Master I ([LINK](#))

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RELEVANT PROJECTS

Stock Monitor App

Self Learning Project

Aug 2024--Present

- Designed a lightweight cloud application to monitor and predict the stock price of S&P 500 companies using **Python** and Docker. (LINK)
- The Impact - Helps users plot closing prices of stocks, perform correlation analysis and obtain yearly changes of select stocks.

Reinforcement Learning Sensitivity Analysis

Academic Project

Sep 2020

Delft, Netherlands

- Implemented Reinforcement learning algorithms - SARSA and Q-Learning on OpenAI Gym environments
- Compared the performance of the algorithms by tuning hyperparameters.

Cooperative planner for Swarm Robots

MSc Internship Project

Jun 2020--Aug 2020

Rotterdam, Netherlands

- Designed distributed planning algorithms of multi-robot teams performing SLAM using **Python**, C++ and ROS. (Project Link)
- The Impact - The internship study gave a foundation for my thesis, which we were eventually able to publish in an academic conference.

Autonomous Driving using Computer Vision

Group Academic Project

May 2020--June 2020

Delft, Netherlands

- Implemented lightweight neural network models for the autonomous driving of embedded robotic cars.
- Developed the Convolutional Neural Network (CNN) architecture in **Python** and proved its working on a simulator.
- Project Link: (LINK)

EXTRA-CURRICULARS

- Regular half marathon runner (5+ events) (LINK)
- Landscape Photography (LINK)
- Drone Photography (LINK)
- Guitar basics focused on the rhythm guitar (LINK)
- Awarded the Visionary Graduate Engineering Trainee (GET) award at Alstom Transport which recognised my planning and scheduling skills.
- Head of a technical student club during my Bachelors study called the Indian Society for Technical Education (ISTE-NITK).
- During my Bachelor's study, regularly volunteered to help underprivileged students in Indian government schools with their studies.

MANAGERIAL SKILLS

Project Planning

Collaboration

Customer Interaction

Agile Working

Scrum

Mentoring and Training

KNOWN LANGUAGES

English

Dutch (A2)

German (A1)

Hindi

Kannada

HOBBIES

Running

Tennis

Cycling

Photography

Learning Languages

Guitar