

# VIBHAV INNA KEDEGE

MSc Embedded Systems (Honours), BSc Electrical Engineering

in [ikvibhav \(LINK\)](#)   [Personal Website](#)   [ikvibhav \(LINK\)](#)  
@ [ikvibhav@gmail.com](mailto:ikvibhav@gmail.com)  
📍 Rotterdam, The Netherlands

- Date of Birth: 27th July 1995
- Nationality: Dutch (Netherlands, EU) & Indian (OCI)



## PROFESSIONAL EXPERIENCE

Alfen N.V.

DevOps Software Engineer | R&D Department

📅 Oct 2023--Ongoing   📍 Almere, The Netherlands

- Design Software Systems that implement Behaviour Driven Development (BDD) of Electric Vehicle Charging station Firmware using **Python**(Flask API), Linux, Jenkins, Docker & Ansible.
- Designing software systems that enable data-driven decision making using **Python**(FASTAPI), PostgreSQL and Grafana.
- The Impact - Implementing software systems that run and monitor 2000+ tests daily on HIL systems 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--Sep 2023   📍 The Hague, The Netherlands

- Designed software to monitor and analyse KPN internet devices across the Netherlands using Spark, Scala, **Python** and Tableau.
- Implemented a machine learning system to predict customer satisfaction using health metrics from KPN devices.
- The Impact - Analysed data from 1 Billion internet devices to ensure stable WiFi quality across the Netherlands and reduce customer churn rate at KPN.

Almende B.V.

Robotics Researcher | R&D Department

📅 Jun 2020--Aug 2021   📍 Rotterdam, The Netherlands

- Designed distributed planning algorithms of multi-robot teams performing Simultaneous localization and mapping (SLAM) using **Python**, C++ and ROS. ([Project Link](#))
- The Impact - Gained valuable insights into multi-robot planning and published our findings for a specific case. ([Link](#))

Alstom Transport

System Engineer - Networks | Train Control Department

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

- Designed 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 professional with 5+ years of experience in Python Software Design, Linux Systems, AI and Robotics, who enjoys solving complex global challenges.'*

## EDUCATION

Delft University of Technology

MSc Embedded Systems (Honours)

📅 2019 - 2021   📍 Delft, Netherlands

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

National Institute of Technology  
Karnataka (NITK-Surathkal)

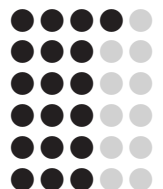
Bachelor of Technology, Electrical and  
Electronics Engineering

📅 2013 - 2017   📍 Mangalore, India

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

## TECHNICAL SKILLS

Python  
Software System Design  
Linux/Bash  
Jenkins  
Git  
Tensorflow



## 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.

### MLOps for Image Segmentation

#### Freelance Project

📅 Sep 2020

📍 Delft, 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.

### 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.
- Project Link: (LINK)

### 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