



## Kartik Mudgal

**Date of birth:** 18/07/1996 | **Nationality:** Indian | **Phone number:**

(+49) 17643859754 (Mobile) | **Email address:** [kartik1807.imp@gmail.com](mailto:kartik1807.imp@gmail.com) |

**Address:** Schopenhauer Strasse 7, 39108, Magdeburg, Germany (Home)

### ● WORK EXPERIENCE

01/03/2023 – CURRENT Berlin, Germany

#### WORKING STUDENT CARIAD SE

- Task: move a flexmonster based visualisation system for "Campaign" data to PowerBI, including user authentication
- Make relevant PowerBI reports accessible via web embeds to people outside of the organisation without them having internal Azure accounts.
- Maintain data segregation and security
- Currently:
  - wrote a powerbi data source driver to connect to a custom data source
    - have to connect via a web-api
  - set up an auto-updating report via PowerBI data gateway
    - make sure the powerbi reports match the functionality of the flexmonster service
  - working on role based access and row-level access.

01/08/2022 – 31/01/2023 Berlin, Germany

#### WORKING STUDENT XCNT GMBH

- Surveyed a number of alternatives to Grafana for a complete dashboard tool rebuild
- Connected with salespeople for different tools to survey pricing and product offerings
- Reconstructed an error monitoring dashboard tool in Retool, so that it is easily extensible for non-developers. Source tool originally developed in Grafana
- Currently implementing a Floorplan recognition system using Neural Network based Image segmentation and Integer Programming. The finished tool will allow automatic recognition and labelling of standard floorplan. (Lua, Pytorch, CUDA)

06/2021 – 12/2021 Hamburg, Germany

#### WORKING STUDENT IBEO AUTOMOTIVE SYSTEMS

- Worked with Ibeo specific tools to sanitize and classify point cloud data for various applications such as Road Models, etc..

01/07/2018 – 31/01/2019 Gurugram, India

#### GRADUATE PROGRAMMER FIDELITY INTERNATIONAL

- Manage and correct error in data reporting systems
- Develop error-handling system for reports which were either incorrectly formatted or failed error-checks.
- Developed a question-answering system for responding to employee queries using deep learning based Natural Language Processing

01/05/2017 – 31/07/2017 Gurgaon, India

#### MOBILE DEVELOPMENT INTERN ANSYST CONSULTING

- Developed the backend for a product distribution system for a client(PHP: Lumen)
- Developed the frontend for the product distribution system(Android Application)
- Developed the administration interface for the product distribution system(Android + Web interface)
- Designed and deployed the framework(GCP + SQLServer)

## ● EDUCATION AND TRAINING

---

10/2019 – CURRENT Magdeburg, Germany

**MASTER OF SCIENCE IN DATA AND KNOWLEDGE ENGINEERING** Otto-von-Guericke University

---

**Address** Universitaetsplatz 2, 39106, Magdeburg, Germany

07/2014 – 05/2018 Gurugram, India

**BACHELOR OF TECHNOLOGY IN COMPUTER SCIENCE & ENGINEERING** The Northcap University

---

**Address** Sector 23A, 122001, Gurugram, India |

**Website** <https://www.ncuindia.edu/school/department-of-cse#department--programmes>

## ● DIGITAL SKILLS

---

### Data Science

PowerBI | Pytorch | Tensorflow | R

### Databases

MongoDB | SQL

### Web Development

PHP | TypeScript | ReactJS | Javascript | Spring Boot | Lumen Framework

### General

Java | Python | Google Cloud Platform | Microsoft Excel | Git

## ● PROJECTS

---

01/05/2020 – 01/07/2020

### Hearthstone Bot

---

- An AI to play Hearthstone. Our agent secured a win rate of 63.89%. The bot was limited to using the six decks provided by the organizers. It was a dynamic lookahead based agent, and the state exploration was using breadth-first search.

01/07/2018 – 31/08/2019

### FILAssist: Topic specific, context aware question answering system

---

- FILAssist was a neural network based question answering system. It was context-aware, and did not generate phrases, instead our architecture extracted relevant sentences from the topic database.
- The project was developed in Python with Tensorflow, and was deployed as an Alexa Application over AWS.

14/10/2020 – CURRENT

### Aethra: Understanding Deep Reinforcement Learning Systems

---

- To see how interpretability methods improve model understanding and performance. We designed two test cases to understand the our DQN-based architecture, and show quantifiable increase in performance with help of the insights gained by using relevant interpretability methods (In our case: Saliency Maps, MMD-Critic)

**Links** <https://github.com/tarunInmiit/idrl> | [https://github.com/tarunInmiit/idrl\\_mmd](https://github.com/tarunInmiit/idrl_mmd)