KARTIK B BHARGAV

Software Engineer and Data Science Enthusiast

+31 626928158 | kartikbhargav93@gmail.com | Pisanostraat 140, 5623CE Eindhoven, Netherlands
https://www.linkedin.com/in/kartik-b-bhargav

BIO

I am an ambitious and driven software engineer and a seasoned software developer with over six years of experience in developing enterprise software applications seeking full time roles as **Python Developer.** I am also a graduate in Data Science from **Eindhoven University of Technology**.

WORK EXPERIENCE

Rabobank, Software Engineer, Utrecht, The Netherlands   **Dec 2022 – Nov 2023**

- Implemented **Azure durable functions** required to categorize transactions in real time streaming setup using **Python**.
- Implemented the core orchestrator logic to categorize real time transactions using **Python** and **Kafka** in **Azure Cloud**.
- Created a **dashboard** in **Azure Application Insights** using **KQL** to monitor the operational metrics of the Transaction Categorization Engine.
- Setup a local testing environment to test the entire architecture of transaction categorization engine using **Docker**, **FastAPI** and **PostgreSQL** which in turn significantly sped up the development process of the team.
- Performed **ETL** and **Exploratory Data Analysis** using **Databricks** to resolve customer facing issues.

TomTom, Data Software Engineer, Eindhoven, The Netherlands   **May 2022 – Nov 2022**

- Performed benchmarking and evaluated the behavior of the map comparison tool for different noise levels using **Python** and **Numpy**.
- Performed **Exploratory Data Analysis** of various map datasets using **Python**, **GeoPandas** and **QGIS**.
- Improved the **speed** of the map comparison tool by **300%** by configuring the code to run in a **PyPy** environment.
- Increased the **code coverage** of the map comparison tool by adding new unit test cases using **Pytest** and visualized the various map sources in the test scenarios using **Matplotlib**.

TNO, Graduate Thesis Intern, Helmond, The Netherlands   **May 2021 – Oct 2021**

- Performed **data cleaning**, **data pre-processing**, **exploratory data analysis** and **feature engineering** on the battery degradation dataset provided by TNO.
- Implemented **Support Vector Regression**, **LSTM model** and **Instance based Learning** model to predict the remaining useful life of lithium-ion batteries for electric vehicles using **Python** and **MATLAB**.
- Communicated and presented the results to multiple stakeholders within the organization.

VMWare, Member of Technical Staff, Bengaluru, Karnataka, India   **Oct 2017 – Jun 2019**

- Implemented the complete server side code to support device management of Linux devices in the VMWare Workspace ONE UEM console using **MSSQL**, **Python** and **C#**.
- Taught **Git** and writing integration tests using **SpecFlow** to a team of 15 Quality Engineers as part of testing team migration from manual testing to automation testing.
- Implemented a pipeline to automatically execute the **unit tests** on the Airwatch Windows Mobile Agent application and generate test case execution report for every build triggered on the build server using **Python**.

VMWare AirWatch, Member of Technical Staff, Bengaluru, Karnataka, India   **Jul 2015 – Oct 2017**

- Achieved a **reduction of 50%** in the **memory size** of Airwatch Windows Mobile Agent using **C++**.
- Implemented multiple proof of concepts (**POCs**) for the Airwatch Windows Mobile Agent application using **Python** and **C++**.
- Fixed multiple bugs and handled customer escalations in the source code of Airwatch Windows Mobile Agent using **Python** and **C++**.

EDUCATION

Master of Science in Data Science in Engineering   **Sep 2019 – Oct 2021**
Eindhoven University of Technology   Eindhoven, The Netherlands

Bachelor of Engineering in Electronics and Communications   **Sep 2011 – May 2015**
Sri Jayacharamarajendra College of Engineering   Mysuru, Karnataka, India

PROJECTS

Image Caption Generation @ TU Eindhoven   **Apr 2020 – Apr 2020**

- Implemented a **LSTM** network which takes an image representation obtained from a **CNN** as input and produces a caption describing the image for the **Flickr8k** dataset using **Keras**.

High performance implementation of Leave One Out Cross Validation @ TU Eindhoven   **Feb 2020 – Mar 2020**

- Implemented a high performance code for Leave One Out Cross Validation (LOOCV) on the MNIST dataset using **NumPy** which runs on multiple cores available in the system. This **reduced** the **computation time** up to **80%**.

World Development Indicators Visualization @ TU Eindhoven   **Nov 2019 – Dec 2019**

- Implemented the **dashboards** using **Tableau** to perform a **visual analysis** of the population characteristics and carbon footprints of various countries across the globe.

SKILLS

Programming Skills : Python, C++, C#, C, Rust, MSSQL, PostgreSQL, Typescript
Software : PyCharm, Jupyter, Google Colab, IntelliJ, Visual Studio, VSCode, SQL Server Studio, Powerpoint, ProM
Data Science : TensorFlow, Scikit-Learn, Process Mining, XGBoost, Keras, Pandas, Numpy, Scipy, Excel
Methodologies : Agile (Scrum), Waterfall, CI/CD, DevOps
Deployment : Docker, Kubernetes, Git, Azure DevOps, GitHub, Gitlab, Bitbucket, Jira
Visualization : Tableau, PowerBI, Google Data Studio, Matplotlib, Plotly Dash
Operating Systems : Windows, Linux (Ubuntu), MacOS
Python Libraries: FastAPI, Falcon, SQLAlchemy, Poetry, Pydantic

COURSES AND CERTIFICATIONS

Advanced NLP with SpaCy   **Datacamp - Apr 2021**
Crash Course on Python by Google   **Coursera - Sep 2020**
Introduction to Git and Github by Google   **Coursera - Aug 2020**
Data Scientist Nanodegree - Term 1 by Google   **Udacity - Mar 2019**
Introduction to Data Science in Python by Google   **Coursera - Apr 2017**
A Crash Course in Data Science by John Hopkins University   **Coursera - Jan 2016**
Python for Everybody Specialization by University of Michigan   **Coursera - Oct 2015**

LANGUAGES

English – Professional Working Proficiency
Kannada – Native or Bilingual Proficiency
Hindi – Limited Working Proficiency

HONORS AND AWARDS

Top 10% in the Workation Price Prediction Challenge ML Hackathon in MachineHack.   **Feb 2021**
Awarded Amandus H. Lundqvist Scholarship and Holland Scholarship from TU Eindhoven (TU/e).   **Aug 2019**
Recognized as the Best performing team member at VMware.   **Apr 2019**
Won the Best Paper Presenter award in the international conference ICEECCOT-2018 held at GSSSIETW, Mysuru.   **Dec 2018**

INTERESTS

Tech - Web Scraping, Android App Development, Embedded Programming
Sports – Badminton, Cycling, Chess
Arts - Listening to Music, Singing