Personal information

Surname / First name	**Iyer Venkatesh R**
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Work Experience

Oct 2020 - Jul 2021

Machine Learning Researcher, Institute of Flight Guidance, German Aerospace Center (DLR), Braunschweig

Next Generation Intelligent Cockpit (NICO) project is about the prediction of future anomaly a.k.a. fault detection, given the time-series data such as altitude, speed, and airspace violations for raising alert to pilot for safe flight maneuver. My work involved researching the feasibility check for the project and the collection of data from the flight simulator.

Nov 2019 - Jul 2020

Junior IT Admin, MindGarage, TU Kaiserslautern, Kaiserslautern

Successfully conducted and managed Hackathons in Deep Learning (eg., 4 hours intensive pair programming for reproducing state-of-the-art results from scratch). Implement Docker-based IT infrastructure for GPU sharing in deep learning projects. Maintenance of hardware and software in the deep learning lab.

Oct 2018 - Jun 2019

UI Developer, Department of Cognitive and Developmental Psychology, TU Kaiserslautern, Kaiserslautern

Developed responsive website for psychometric test procedures, such as flanker, n-back, and mental rotation.

Jul 2014 - Aug 2016

Associate Software Developer, Ernst & Young (EY), Bengaluru, India

Designed, developed, and supported live applications using C# .Lead a team size of four (consultants) for J.P Morgan Chase to manage internal audit (Sarbanes-Oxley Act) data on Microsoft SharePoint.

Education

Oct 2016 - Aug 2020

Technische Universität Kaiserslautern, Germany

Title of qualification awarded

M.Sc. in Computer Science (Artificial Intelligence), Result obtained: 2.6/4

Key courses

Deep learning, Applications of AI, Computer vision, Machine learning, Embedded intelligence, Biologically motivated robots

Jun 2010 - Jun 2014	**Gujarat Technological University**, India
Title of qualification awarded	B.Tech. in Computer Science, Result obtained: 7.5/10
Key courses	AI, Operating systems, Data structure and algorithms, Compilers, Computer graphics

Research experience

Apr 2020 - May 2020	**In-house project**, Cancer nuclei segmentation The objective of this project was to explore the working of a Convolutional neural network (CNN) on medical image semantic segmentation. Implemented UNet architecture for cell segmentation using the 2018 Science Bowl Competition.
Jun 2019 - Jan 2020	**Master thesis**, Semantic segmentation and object detection using a common pipeline The objective of the Thesis was to research the performance of both semantic segmentation and object detection in parallel using a single common pipeline. Designed and implemented a combined multi-task CNN architecture using a single encoder which reduced the number of trainable parameters.
Oct 2018 - Mar 2019	**Master project**, Semantic segmentation and object detection using OpenCV library The objective of this project was to detect objects on a segmented map using OpenCV tools. Implemented a semantic segmentation architecture and detected selected classes on the segmented map using contours.
Oct 2017 - Feb 2018	**In-house project**, Classifying political affiliation based on Twitter posts The objective of the project was to classify the political affiliation of leaders by scraping their tweets using Twitter API. Used pre-trained NLP techniques Word2Vec and CNN for classification.

Skills

Frameworks, libraries, services	TensorFlow, Keras, NumPy, SciPy, OpenCV, Pandas, Flask, Docker, Amazon Sagemaker
Programming languages	Python, C/C++, JavaScript
Operating systems	Ubuntu, Windows
Databases	MySQL
Scrum	Jira
Version control	Git

Additional information

Languages	English (native or bilingual proficiency), German (elementary proficiency), Tamil (mother tongue)
Hobbies	Reading, sports, traveling, volunteering
Other Courses	Convolution Neural Networks for Visual Recognition (CS231n) Machine Learning (CS229)
Attended conferences	WAW Machine learning conference by DLR Jena
References	Matthias Wies: matthias.wies@dlr.de, Marcus Biella: Marcus.Biella@dlr.de