Niyathipriya Pasupuleti

MSc. - Automotive Software Engineering

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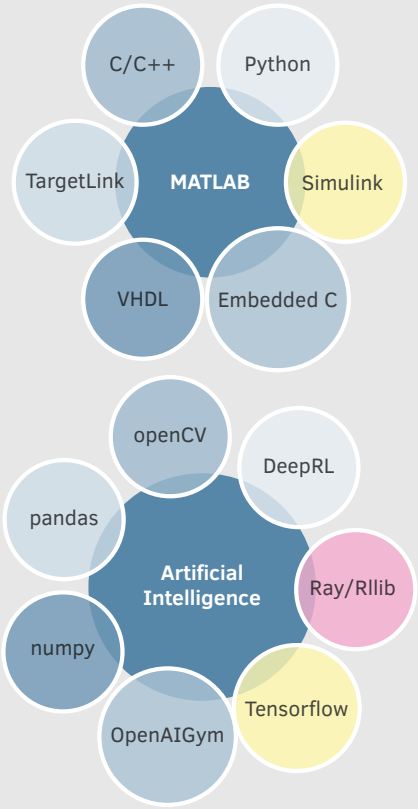
Languages

- English ●●●●●
- German ●●●●○
- Japanese ●●○○○

Skills



Professional Experience

01/20 - Now **Research Assistant** — Carissma Research Institute
- Research assistant as Python developer for Crash scenarios
- Research and analysis for developing crash analysis with Python
- Creating crash scenarios to activate air bags and reduce intensity

01/19-08/19 **Master Thesis - Artificial Intelligence for Traffic Simulation** — Audi Electronics Venture GmbH
- Finding a scalable algorithm with Multi agent Autonomous cars in a Traffic scenario using Deep Reinforcement learning in Python.
- Visualize traffic simulation using different simulation tools.
- Implemented with Open AI Gym, Rllib, Tensorflow, Numpy, SUMO.

06/18-11/18 **Internship - Pre-development of Fleet Simulation** — Audi Electronics Venture GmbH
- Development of a scalable simulation environment and implement various charging types of a Battery car with swarm functions
- Develop technical requirements of fleet simulation and assist in implementation using Java

10/17-01/18 **Lab Practical** — Technische Universität Chemnitz
- Create an AUTOSAR application layer with dSPACE SystemDesk.
- Implemented basic CAN message communication with Tiny-CAN.
- Implementation of Application layer and integrating with BSw (tresos)

08/13-07/17 **Systems Engineer** — Tata Consultancy Services Limited
- Created MATLAB Simulink models (MBD) to generate Auto-Code using dSPACE TargetLink for Transmission system in a car.
- Developed models from MISRA C compliant C code were then MIL,SIL, PIL tested.
- Research of AUTOSAR module layers with legacy code.

12/12-03/13 **Bachelor Project - Super Scope**
- Portable all in one hand held Electronics devices lab equipment.
- Includes various sensors like MEMS accelerometer, touch screen, CRO, TFT LCD display, UART, rotary encoder, voltage and current sensor.
- Advanced TFT Color display for clear waveforms and operated with the latest touch screen interface using touch buttons and menus.

Education

Master Studies

05/17-10/19 **Automotive Software Engineering** — Technische Universität Chemnitz
Autosar: Automotive Software Architechture, CAN, Flexray,Arduino Programming,Design of Software for embedded Systems, Image Understanding, Artificial Intelligence conceptual knowledge.

Bachelor Studies

08/09-05/13 **Electronics and Communication Engineering** — SRM University
Digital Communication, Wireless Communication, Microprocessor and Microcontroller.

Personal Projects

- **Hand-Written Digit Recognizer**

  Recognize hand-written digits in an image and display digitally with OpenCV in Python
  Github Link: `https://github.com/BeyondDreamers93/HandWrittenDigitReader`

- **Object Detection wiit HAAR Cascade Classifiers**

  Detecting the object from an input video with a specific classifier with OpenCV in C++
  Github Link: `https://github.com/pnp91/ObjectDetection_CascadeClassifier`

- **LiveSketch with Webcam**

  Convert the recorded live video from the webcam to a pencil sketch with OpenCV in C++
  Github Link: `https://github.com/pnp91/LiveSketchApp`

- **Car counter from an input video**

  Counting cars from an input video with OpenCV in C++
  Github Link: `https://github.com/BeyondDreamers93/Car-Counter`

Portfolio

- *https://niyathipriyapasupu.wixsite.com/niyathipriya-pasupu*