Kartik Sachdev

Graduate Student at RWTH Aachen University

Highly motivated graduate student looking to make a big impact in field of Deep Learning at a face-paced organization.

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WORK EXPERIENCE

Robotic Software Engineering Intern
BMW Group

07/2021 - Present   *Munich, Germany*

Tasks
- Developing behaviour design for a logistic robot with Finite State-Machines using SMACH & ROS
- Developed simulation & motion planning of UR10 for production & early stage projects using Gazebo & MoveIt!
- Initiated & held workshop on Docker for over 20 members from various departments

Self-Employed
Freelancing

04/2019 - 08/2020   *Delhi, India*

Tasks
- Provided Japanese-English interpretation & translation services to NDIM (MBA institute) & Japanese tutions

Research & Development Engineer
TBK Co., Ltd.

11/2016 - 04/2019   *Tokyo, Japan*
Brakes & Engine Parts Manufacturer

Tasks
- Designed & analyzed water pumps for heavy duty vehicles
- Interpretation of Japanese language during client meetings & translation of in-house technical documents
- Coached an intern in Japanese language & business ethics

Project Engineer
Wipro Limited

07/2016 - 10/2016   *Bangalore, India*
IT & Consulting Service Company

Tasks
- Supervised fabrication & assembling of Autonomous car
- Studied ROS & architecture of the Autonomous car

EDUCATION

M.Sc Robotic Systems Engineering
RWTH Aachen University

09/2020 - Present   *Aachen, Germany*

Courses
- **Grades** : 2.1 (till second semester)
- Deep Learning for Visual Recognition, Self-driving labs, Machine Learning, Control Engineering etc.

B.E Manufacturing Process & Automation
NSIT, University of Delhi

08/2012 - 06/2016   *Delhi, India*

Details
- **Grades**: 74.05% or 8.15 (CGPA)
- AI, Optimization Techniques, Industrial electronics etc.

SKILLS

`Python` `PyTorch` `GYM` `ROS` `Git`

`Linux` `C++` `Docker` `AutoGluon`

`Auto-PyTorch` `Gazebo` `MoveIt!` `FastAPI`

`Huggingface`

PROJECTS

Lab-ml, GitHub (02/2021 - 04/2021)
- Contributed to open source repository consisting of Neural Network implementations with explanations using PyTorch
- Repository: https://github.com/lab-ml/nn

Design & Simulation of 5-DOF Upper-Body Exoskeleton Robotic System (03/2020 - 08/2020)
- Designed 5-DOF Upper body Exoskeleton using 95th percentile body dimensions & simulated simple object detection, pick & place using ROS, Gazebo & MoveIt!

Design & Development of Motorcycle Ambulance (06/2015 - 07/2016)
- Worked at Defense Research & Development Organization (DRDO), India for bachelor's thesis (highest score in department)
- Conceptualized, designed & developed the first prototype of Motorcycle Ambulance
- Led & handled a team of four for the project
- Product currently being used by the Central Reserve Police Force (CRPF) in terrorist hit areas in India
- News Coverage : DRDO Developes 'Rakshita' Motorcycle Ambulance for CRPF in Naxal Areas, Based on RE Classic 350 (news18.com)

ACHIEVEMENTS

Third Position in AutoML Fall School Hackathon (11/2021)
Participated in AutoML Fall School organized by University of Freiburg covering topics like Hyperparameter Optimization, Neural Architecture Search (NAS), Autosklearn, SMAC etc.

RWTH Deutschkurs B1.1 (08/2021)
Completed German Language course B1.1 offered by RWTH Aachen University Language Center during the Summer Semester 2021

Second Position in Fraunhofer's #hackingforfuture Hackathon (04/2021)
Developed Light Gradient Boosting Machine ensemble with Pycaret and used CXPlain & SHAP libraries to ascertain feature importance

Participation in Nextgrid's GPT-3 Hackathon (04/2021)
Developed a web application based on GPT-3 for making LATEX presentations simply using Natural Language inputted by the user

LANGUAGES

Language					
English	●	●	●	●	●
Japanese	●	●	●	○	○
German	●	●	●	○	○