VARUN BURDE

PhD Student and researcher
Czech Institute of Informatics, Robotics and Cybernetics
Czech Technical University at Prague
Jugoslávských partyzánů 1580/3, 160 00 Dejvice
varunburde@gmail.com, varun.burde@cvut.cz
VarunBurde.github.io | Profile website

Objective

To study, learn and research about robots and artificial intelligence. Design a robotics system which will assist mankind for better future.

Education

České vysoké učení technické v Praze, ***ČVUT*** — Current
(Czech technical university at Praha)
Doctor of Philosophy, Faculty of Electrical Engineering, Department of Computer Science

České vysoké učení technické v Praze, ***ČVUT*** — 2020
(Czech technical university at Praha)
Master of Science, Cybernetics and Robotics (Robotics specialization)

Acropolis Technical Campus, Indore — 2017
(affiliated to Rajiv Gandhi Technical University (RGTU) in Bhopal)
Bachelor of Engineering (Electronics and communication)

Skills and Interest

- Languages: Python, C/C++, C#, MATLAB, Simulink, Embedded C, Maple, Bash
- Skills: Keras, Pytorch, TensorFlow, Machine Learning, OpenCV, Deep neural network, Image processing, Data science, ROS, Microsoft office, SAP HANA, Circuit simulation and PCB designing, Arduino, API integration, Kinematics analysis, GUI development with Tkinter, Pandas, Version control (Git, Plastics), JIRA, AutoCAD
- Interests: Machine perception, Artificial intelligence, Robotics, Computer vision, Dynamics and control, Flying robots, Machine learning, Humanoid Robots, Deep Neural network, Path planning, Augmented reality, Virtual reality

Industrial training

- Robotic Perception group, CIIRC Prague
  Summer job of 3 months (working with Slam algorithm, path planning, creating GUI)
- Dsk Benelli (Shiva Moto wheel Indore)
  workshop work experience of 3 weeks as General technician

- Tuff Glass Technology, Indore
  Industrial work experience of 3 weeks as junior electronic technician

Work Experience

- Developer for Industry 4.0 at CIIRC, testbed (since October 2019 - current)

Projects

- Remotely controlled Android based electronic notice board using GLCD (Bachelor's)
- Sound follower: Arduino based project with D.I.Y kit that follow sound (Bachelor's)
- Ps3 controller-based radio control car with precise locomotion (Bachelor's)
- X-mode quadcopter with FS-CT6 transmitter and Hobby king KK2.1.5 multi-rotor LCD flight control board with 6050MPU And Atmel 644PA(Bachelor's)
- Quadruped model using Arduino board with servo motors (Bachelor's)
- Analysis of spam filter with different classifiers. (Master's)
- An estimation of a robot's position in a maze using a hidden Markov model algorithm. (Master's)
- Collaborative robot as a caricaturist with KUKA LBR iiwa 14 (Master's)
- Key logger (SENMAN s.r.o.)
- Detection of speed of ball in tennis game with OpenCV (SENMAN s.r.o.)
- Deep neural network for classification and segmentation of Google Street View imagery.
- Deep neural network for city mapping using Google Street View data (Master thesis).
- Software development and testing of Montratec rail system using opcUa server (CIIRC).
- Vision based pick and place operation using deep learning(current)
- Pixhawk based autonomous drone (current).

Co-curricular activities

- Leaded team won Porsche Student autonomous driving contest 2022
- Participated and won many football competitions at college events
- Leaded college football team in 2017.
- Actively participated in robotics and sports competition and events.
- Attended activities international student club at CTU Praha.
- Played football at fourth division league at Strahovskaliga (2018).

Hobbies

- Reading about inventions, discoveries and new development in robotics, computers, automation technologies and biotechnology.
- Playing football (soccer) and team sports.
- Love to watch and hear hypothesis for travelling future, space and about extraterrestrial life.
- Analysis of MotoGP and gaining skills.
- Strategy based video games with some fancy theme like Sci-fi, fantasy, superpowers.