



Prashanth Swaminathan

Education

July 2009 – **Bachelor of Technology in Computer Science.**

May 2013 Amrita Vishwa Vidyapeetham, Coimbatore, India

Bachelor Pragyan: A semantic question answering engine.

- thesis
- Tech: Java, Stanford NLP parser, Dataset from DBPedia, RDF, Jena Framework
 - Desc: A question answering engine, that answers 'who, what, when' based questions. This is a new dimension in the field of search engines and information representation.

Oct 2016 – **Master Of Science in Informatics.**

Present Technische Universität München, München, Deutschland

Master Thesis Deep learning based quantification of spine deformations in 3D CT scans

- Tech: Python, PyTorch, Tensorflow, DICOM, Nifti, OpenCV, Matplotlib
- Desc: Detection of scoliotic disorders from a patient's CT scan using Deep learning techniques, in a pipeline from data cleaning to quantification of Cobb angle. Defended the thesis successfully with a 1.0 grade. Read it [here](#). Code on [github](#)

Experience

Full time

Aug 2013 – **Senior Software Engineer, Robert Bosch, Bangalore, India.**

June 2016 Worked on HMI for Infotainment systems in leading OEMs like Suzuki, VW, and Nissan.

Served as the go-to guy in the "HMI-Center of Competence" building prototype of future HMI in cars.

Major achievements:

- Contributed in building the Infotainment system in the Bosch Car of the future, which was showcased in CES2015 and [CES2016](#).
- Worked on reducing driver distraction with eye tracking algorithms and haptic touch screens, which also won the "[CES 2016 Innovation Award](#)".
- Received the "Young Achiever award" 2014-2015, by the department of Car Multimedia, for my contributions in a major project for a German OEM, and mentoring of new associates.

Work Student

July 2017 - **Sixt GmbH, Data Scientist, München.**

- Dec 2018
- Worked on developing a machine learning model to predict the optimal way to de-fleet cars.
 - Recognized and rewarded with a special cash re-numeration for my contribution in building a fast test-feedback collecting platform for Data Science projects.
 - Tech: Python, [scikit-learn](#), Pandas, Amazon Sagemaker, Amazon Lambda.

Academic projects

Roboy We are an interdisciplinary team from TUM striving to build and advance humanoid robotics to the state where its robots are just as good as a human body.

- Tech: Python, Tensorflow, Dlib,
- Desc: Computer Vision- Implemented object detection, face detection and recognition and multiple object tracking.
- Demo: A video of the implementation

Roboy A YouTube channel dedicated to explain state-of-the-art research papers in robotics with simple explanation and engaging visualizations.

Research ○ Desc: Lead the team by transcribing the paper and narrating the script.

Reviews

Alpha 17 A First Person Shooter Game.

- Tech: Unity 3D game engine, Javascript, Google SketchUp
- Desc: Developed a first person shooter game in which the mission for the shooter was to save the hostages.

Publications

- [1] S. Prashanth Ga Shanmugha Sundaram, Sp Geetha. Demand responsive public transportation using wireless technologies. *Proceeding ACWR '11 Proceedings of the 1st International Conference on Wireless Technologies for Humanitarian Relief*, pages Pages 449–453, 2011.

Achievements and Awards

- "Overall performance award" 2009-2013, Dept of CS, Amrita University.
- Regional Finalist in the ICPC programming competition 2011 conducted by ACM
- Delivered lecture on 'Demand based public transportation and smarter traffic signals' at the TEDx, Coimbatore
- Presented my paper, and won the first prize in iNSCRIBE 2011, a national paper presentation competition, conducted by Robert Bosch India.

Skill Set

Languages Python, C++, Java, C#, Golang, Javascript

Libraries PyTorch, TensorFlow, scikit-learn, pandas, numpy, Django, .NET, STL C++

Others GNU/Linux, L^AT_EX, Arduino

Other Interests

Photography, Carpentry, Reading, Movies, Motorbiking, Cooking

Languages

Tamil-Native, English-Expert, German-Basic