

Abhishek Ramanathapura Satyanarayana

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RESEARCH INTERESTS

- Machine Learning, Computer Vision, Robot Perception, Artificial Intelligence, Mobile Robot Systems.

EDUCATION

- **University of Groningen [RUG]** Groningen, the Netherlands
M.Sc. in Artificial Intelligence Sep 2021 - present
- **National Institute of Technology Karnataka [NITK]** Surathkal, Mangaluru, India
B.Tech. in Information Technology, CGPA: 8.3/10 Jul 2012 - May 2016

EXPERIENCE

- **Ati Motors** Bengaluru, India
Research Associate (Machine Learning) in Autonomy Sep 2017 - Jun 2021
 - **Machine learning:** Worked on research, prototype, development, and deployment of Machine Learning, Deep Learning, Computer Vision, Robot Perception, and Algorithm solutions for autonomous cargo vehicles. This involved using the LiDAR and multi-modal camera data (i.e. RGBD) for developing various ML pipelines with a focus on object classification in 2D images, object detection in 2D images, semantic segmentation in 2D images, and semantic segmentation in 3D LiDAR point cloud data.
 - **HW benchmarking:** Benchmarking of various ML models that were developed on multiple HW devices such as Nvidia's server GPUs, Intel Movidius stick, and Nvidia Xavier embedded development board.
 - **Sensor drivers:** Active involvement in prototype, development, deployment, and testing of various LiDAR and camera sensor drivers (including multi-modal i.e. RGBD camera).
 - **Sensor data pipelines:** Active involvement in development, deployment, and testing of various raw and derived sensor data pipelines.
 - **Testing:** Active involvement in testing various algorithm pipelines on prototype and production vehicles.
 - **Demos and deployment:** Active involvement in multiple potential customer demos and successful customer deployment activities at customer sites. This includes Ati's successful first and further customer deployments.
- **Indian Institute of Science** Bengaluru, India
Project Assistant Intern at HPC Lab in SERC Jun 2016 - Dec 2016
 - **Professor guide:** Prof. R Govindarajan
 - **Parallel programming:** Worked on implementation and benchmarking of data parallel algorithms to achieve high performance on hardware accelerators using APIs - CUDA C, OpenCL, OpenMP.
- **J P Morgan Chase** Mumbai, India
Technology Analyst Intern in Investment Banking May 2015 - July 2015
 - **Data analysis:** Worked on data analysis of real-time transaction data.

PROFILES

- LinkedIn: <https://www.linkedin.com/in/abhishek-ramanathapura-satyanarayana-862608a0/>
- Github: <https://github.com/AbhishekRS4/>
- Kaggle: <https://www.kaggle.com/abhishekrs4/>

PROGRAMMING LANGUAGES AND TECH SKILLS

- **Programming languages:** Python, C, C++, Java, Matlab
- **Database:** SQLite, MySQL
- **Version control:** Git

SELF LEARNING COURSES

- Machine Learning, Coursera (Certification)
- Mathematics for Machine Learning Specialization, Coursera (Certification)
- Deep Learning Specialization, Coursera (Certification)
- Applied Data Science Specialization, Coursera (Certification)
- Python for Everybody Specialization, Coursera (Certification)
- Robotics - Perception, Coursera (Certification)
- An Intuitive Introduction to Probability, Coursera (Certification)
- Data Science Math Skills, Coursera (Certification)
- Fibonacci Numbers and Golden Ration, Coursera (Certification)
- Parallel Programming and Optimization for Intel Architectures, Colfax Research (Certification)
- Course Certificates -
<https://drive.google.com/drive/folders/0Byk-dMy2pBxeX21IbmRIWFExNFk?usp=sharing>

NOTABLE AWARDS AND ACHIEVEMENTS

- **Beta Business Days - B & S case study** Groningen, the Netherlands
2021-2022
 - **B & S case study - text recognition challenge:** Won the best solution award by developing a web application solution using cognitive services of Azure
- **Acute Myeloid Leukemia Prediction Challenge** Groningen, the Netherlands
2021-2022
 - **Acute Myeloid Leukemia Prediction Challenge:** Our team won the 2nd best performer award in the Acute Myeloid Leukemia Prediction Challenge conducted as part of the Introduction to Data Science Master's course at the University of Groningen
- **All India Engineering Entrance Examination [now replaced by JEE mains]** India
Secured a national rank of 6279 among 1200000 candidates *2011-2012*

- **Karnataka Common Entrance Test [KCET] for Engineering** India
Secured a state rank of 404 among 80000 candidates 2011-2012
- **Pre-university Science quiz** India
3rd prize in science quiz 2011-2012
- **Annual high school awards** India
3rd best outgoing student award 2009-2010
- **Bharath ko jano (translation: Know about India)** India
2nd prize in inter high school quiz competition conducted by Bharath Vikas Parishad 2009-2010
- **Annual high school quiz competition** India
2nd prize 2009-2010
- **Annual high school quiz competition** India
1st prize 2008-2009
- **National Science Olympiad** India
1st prize for my high school 2007-2008
- **Chess competitions in School** India
Various prizes in primary and high school including 3 first and 2 runner-up prizes 2005-2010
- **All India General Knowledge by Center for Human Resource Development** India
Completion of CHRD general knowledge competition with distinction 2005-2006

EXTRA CURRICULAR ACTIVITIES

- **IMTEX FORMING 2020 held at BIEC** Bengaluru, India
Represented Ati Motors (as standby) Jan 2020
- **Poster session held at Indian Institute of Science** Bengaluru, India
Represented Ati Motors Jul 2019
- **Incident-16 (cultural festival of NITK)** Surathkal, Mangaluru, India
Team member that conducted the Gaming events of Incident-16 Mar 2016
- **TECHeshi's castle at NITK IEEE tech festival** Surathkal, Mangaluru, India
Team member that conducted the event Dec 2012 - Jan 2013

REFERENCES

- Dr. Geetha V
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National Institute of Technology Karnataka, India
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