

# Abhishek Ramanathapura Satyanarayana

Groningen, the Netherlands



## RESEARCH INTERESTS

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- Artificial Intelligence, Machine Learning, Deep Learning, Computer Vision, Robot Perception

## EDUCATION

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- **University of Groningen [RUG]** Groningen, The Netherlands  
*M.Sc. in Artificial Intelligence* Sep 2021 - present
- **Honours College, University of Groningen** Groningen, The Netherlands  
*Honours Master's in High Tech Systems and Materials (HTSM)* Nov 2021 - Jun 2023
- **National Institute of Technology Karnataka [NITK]** Surathkal, Mangaluru, India  
*B.Tech. in Information Technology, CGPA: 8.3/10* Jul 2012 - May 2016

## EXPERIENCE

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- **FSE, University of Groningen** Groningen, The Netherlands  
*Teaching Assistant (Part-time)* May 2023 - Jun 2023
  - **Teaching Assistant (TA):** Part-time work as a TA for *Handwriting Recognition* course offered by Faculty of Science and Engineering (FSE), University of Groningen.
- **FSE, University of Groningen** Groningen, The Netherlands  
*Teaching Assistant (Part-time)* Feb 2023 - Apr 2023
  - **Teaching Assistant (TA):** Part-time work as a TA for *Deep Learning* and *Computer Vision* courses offered by Faculty of Science and Engineering (FSE), University of Groningen.
- **FSE, University of Groningen** Groningen, The Netherlands  
*Teaching Assistant (Part-time)* Sep 2022 - Nov 2022
  - **Teaching Assistant (TA):** Part-time work as a TA for *Cognitive Robotics* and *Introduction to Data Science* courses offered by Faculty of Science and Engineering (FSE), University of Groningen.
- **Tata Steel in Europe** IJmuiden, The Netherlands  
*Summer AI Intern* Jul 2022 - Aug 2022
  - **Dutch Summer of AI:** This summer internship was a part of the Dutch Summer of AI, edition 2022. Our team won the award for Solving the Most Valuable Problem.
  - **Internship work:** Worked on supervised and unsupervised deep learning methods to classify and cluster images with steel surface defects.
- **UMCG** Groningen, The Netherlands  
*Teaching Assistant (Part-time)* Jun 2022 - Jul 2022
  - **Summer School Data Science and AI in Health:** Part-time work as a Teaching Assistant during the Summer School, edition 2022.
- **Philips Consumer Lifestyle B.V.** Drachten, The Netherlands  
*Internship (Part-time)* Nov 2021 - Jul 2022
  - **Industrial Challenge Internship:** Part-time internship work as a part of HTSM Honours Master's.

- **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 - Jul 2015*
  - **Data analysis:** Worked on data analysis of real-time transaction data.

## PROGRAMMING LANGUAGES AND TECH SKILLS

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

## SELF LEARNING COURSES

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- 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 Ratio, Coursera (Certification)
- Parallel Programming and Optimization for Intel Architectures, Colfax Research (Certification)

## NOTABLE AWARDS AND ACHIEVEMENTS

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- **Dutch Summer of AI, edition 2022** Amsterdam, The Netherlands  
2021-2022
  - **Summer AI Intern at Tata Steel in Europe:** Our team won the award for Solving the Most Valuable Problem, among 9 participating teams at the Dutch Summer of AI, edition 2022.
- **Beta Business Days, edition 2022** Groningen, The Netherlands  
2021-2022
  - **B & S case study - Text recognition challenge:** Won the best solution award by developing a web application solution using the cognitive services API offered by Azure.
- **Acute Myeloid Leukemia Prediction Challenge** Groningen, The Netherlands  
2021-2022
  - **Acute Myeloid Leukemia Prediction Challenge:** Our team won the 2<sup>nd</sup> 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

## EXTRA CURRICULAR ACTIVITIES

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- **IMTEX FORMING 2020 held at BIEC** Bengaluru, India  
*Represented Ati Motors* 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

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- Dr. Geetha V  
Assistant Professor  
Department of Information Technology  
National Institute of Technology Karnataka, India  
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