"Abhi"shek Ramanathapura Satyanarayana

(+31) 687353503, Groningen, The Netherlands (willing to relocate)

Email: abhishek.r.satyanarayana.4@gmail.com
GitHub: https://github.com/AbhishekRS4/ **HuggingFace**: https://huggingface.co/abhishekrs4
Personal Website: https://abhishekrs4.github.io/ **LinkedIn**: https://linkedin.com/in/abhishek-r-s/

About me

I am a graduate Artificial Intelligence (AI) Engineer from the University of Groningen. I am a motivated, talented, hardworking, and fast-learning professional. I am interested in a role in the field of AI with a long-term goal of contributing towards improving the various aspects of human lives and the environment through continuous development and deployment of AI applications that can have a significant impact on the real world. In my free time, I usually do one of the following — playing badminton with friends, playing chess, listening to music, watching technology videos, going for walks.

Education

- **M.Sc. in Artificial Intelligence** — Groningen, The Netherlands
  University of Groningen [RUG] — *Sep 2021 - Oct 2023*
  - **Thesis**: For my AI Master's thesis I worked on a research project titled **Enhancing depth estimation for Transparent objects**. In this research, we proposed a novel encoder-decoder architecture that outperformed the state-of-the-art method.
  - **Relevant Courses**: Machine Learning, Deep Learning, Pattern Recognition, Handwriting Recognition, Cognitive Robotics, Robotics for AI, Computer Vision, Natural Language Processing, Deep Reinforcement Learning, Intro to Data Science.
  - **Grade**: GPA: 8.3/10, Thesis: 8.5/10
- **Honours Master's in High Tech Systems and Materials (HTSM)** — Groningen, The Netherlands
  Honours College, University of Groningen — *Nov 2021 - Jun 2023*
  - **Masterwork**: For my HTSM Masterwork, I worked on a research project titled **Oil Spill Segmentation using Deep Encoder-Decoder models**. In this project, we developed and evaluated the performance of popular deep encoder-decoder models for the oil spill segmentation task. The best-performing model has also been deployed to HuggingFace.
  - **Grade**: GPA: 7.9/10, Masterwork: 9/10
- **B.Tech. in Information Technology** — Surathkal, Mangaluru, India
  National Institute of Technology Karnataka [NITK] — *Jul 2012 - May 2016*
  - **Grade**: CGPA: 8.3/10

Experience

- **Teaching Assistant (Part-time)** — Groningen, The Netherlands
  Faculty of Science and Engineering (FSE), University of Groningen — *May 2023 - Jun 2023*
  - **Responsibilities**: I worked as a TA for *Handwriting Recognition* course during which I monitored the weekly lab sessions, mentored some teams regarding their progress in the course project and graded the course projects.
  - **Skills**: Teamwork, Teaching, Time management, Communication, Python.
- **Teaching Assistant (Part-time)** — Groningen, The Netherlands
  Faculty of Science and Engineering (FSE), University of Groningen — *Feb 2023 - Apr 2023*
  - **Responsibilities**: I worked as a TA for *Deep Learning* and *Computer Vision* courses. I monitored the weekly lab sessions and graded assignments for both courses. I also invigilated the exam for the Deep Learning course.
  - **Skills**: Teamwork, Teaching, Time management, Communication, Python, Matlab.
- **Teaching Assistant (Part-time)** — Groningen, The Netherlands
  Faculty of Science and Engineering (FSE), University of Groningen — *Sep 2022 - Nov 2022*
  - **Responsibilities**: I worked as a TA for *Cognitive Robotics* and *Introduction to Data Science* courses during which I monitored the weekly lab sessions and graded assignments for both courses. I graded the course projects for the Cognitive Robotics course. For the Introduction to Data Science course, I invigilated the course exam, gave a presentation to the students on using Git and GitLab for course assignments, and maintained the GitLab assignment repositories for the teams.
  - **Skills**: Teamwork, Teaching, Time management, Leadership, Communication, Presentation, Python, Git, GitLab.
- **Summer AI Intern** — IJmuiden, The Netherlands
  Tata Steel in Europe — *Jul 2022 - Aug 2022*

- **Responsibilities**: I took part in this summer internship as a part of the Dutch Summer of AI, edition 2022. I worked on supervised and unsupervised deep learning methods to classify and cluster images with steel surface defects. For the unsupervised task, I worked on a model as a proof of concept. For the supervised steel surface defect classification task, I worked on developing a production-ready AI model that achieved a 92% accuracy. When deployed, this model would save at least 500K Euros annually for Tata Steel. Our team won the award for **Solving the Most Valuable Problem**.
- **Skills**: Teamwork, Time management, Communication, Presentation, Python, GitLab, Microsoft Azure, MLFlow.

- **Teaching Assistant (Part-time)** — Groningen, The Netherlands
  University Medical Center Groningen (UMCG), University of Groningen — *Jun 2022 - Jul 2022*
  - **Responsibilities**: I worked as a TA for the Summer School Data Science and AI in Health. I was responsible for making sure that the assignment notebooks did not have any issues. I monitored and helped the students during the summer school.
  - **Skills**: Communication, Leadership, Time management, Python, Jupyter.
- **Internship (Part-time)** — Drachten, The Netherlands
  Philips Consumer Lifestyle B.V. — *Nov 2021 - Jul 2022*
  - **Responsibilities**: For this internship, I worked as a part of an Honours Master's in HTSM. I was in a team in which we worked on a **report outlining different ways of developing a sustainable shaver by reducing the carbon footprint of one of the Philips shaver models**. We presented the top 5 ways of reducing the carbon footprint of the shaver. When some of our proposals are implemented, the carbon footprint of the shaver can be reduced by 16.6% to 35% depending on the choice.
  - **Skills**: Teamwork, Time management, Communication, Presentation.
- **Research Associate (Machine Learning) in Autonomy** — Bengaluru, India
  Ati Motors — *Sep 2017 - Jun 2021*
  - **Responsibilities**: I worked mostly on research, prototyping, development, and deployment of Machine Learning, Deep Learning, Computer Vision, Robot Perception, and miscellaneous Algorithm solutions for autonomous cargo vehicles. In the learning algorithms, I worked mostly on object classification, object detection, and semantic segmentation in 2D images; and semantic segmentation in 3D LiDAR point cloud data. I also worked on benchmarking various ML models on multiple target hardware devices such as Nvidia's GPUs, Intel Movidius stick, and Nvidia Xavier embedded development board. I also worked on the development, deployment, and testing of LiDAR and camera sensor drivers, and raw and derived sensor data pipelines. I was also actively involved in support operations such as showcasing more than 15 demos at potential customer sites and successful deployment activities at 3 customer sites.
  - **Skills**: Communication, Teamwork, Time management, Leadership, Linux, Docker, Git, GitHub, Python, Jupyter, Streamlit, Flask, PyTorch, TensorFlow, TensorRT, Pandas, Scikit-learn, Scipy, OpenCV, C++, C.

Projects

- **Projects**: The projects can be found in my GitHub and HuggingFace profiles.

Skills

- **Soft Skills**: Teamwork, Time management, Communication, Leadership, Presentation, Teaching
- **Programming languages**: Python, C++, C, Java, Matlab
- **Version control (CI/CD)**: Git, GitHub, GitLab
- **Frameworks**: Numpy, Scipy, Pandas, Matplotlib, Scikit, OpenCV, TensorFlow, PyTorch, Streamlit, Flask, FastAPI, etc.
- **Miscellaneous Tech**: Linux, SQLite, MySQL, Docker, Kubernetes, MLFlow, HuggingFace, Microsoft Azure, AWS
- **Languages**: English (professional), Dutch (elementary), Kannada (native), Hindi (professional)

Notable Awards and Achievements

- **Student project award** — Groningen, The Netherlands
  University of Groningen — *2022-2023*
  - **GroNLP**: One of the best student project awards in the NLP course at the University of Groningen, for the word inflection relearning project.
- **Most valuable problem award** — Amsterdam, The Netherlands
  Dutch Summer of AI, edition 2022 — *2021-2022*
  - **Summer AI Intern at Tata Steel in Europe**: Our team won the award for Solving the Most Valuable Problem, among nine participating teams at the Dutch Summer of AI.
- **Best solution award** — Groningen, The Netherlands
  Beta Business Days, edition 2022 — *2021-2022*
  - **B & S case study - Text recognition challenge**: Won the best solution award by developing a web application solution using the Azure cognitive services API.
- **Student project award** — Groningen, The Netherlands
  University of Groningen — *2021-2022*
  - **Acute Myeloid Leukemia Prediction Challenge**: Our team won the 2^{nd} best performer award in the Acute Myeloid Leukemia Prediction Challenge conducted in the Introduction to Data Science course at the University of Groningen.