

GABRIEL FORSBERG

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Machine learning and robotics engineer completing an M.Sc. in Complex Adaptive Systems at Chalmers University of Technology. Experienced in computer vision, autonomous robotics, and data-driven systems using Python and C++. Built multiple end-to-end ML and robotics projects including autonomous vehicles, robotic manipulation systems, and medical imaging models. Right now, I'm working on my master's thesis where I build and program an autonomous USV, equipped with an advanced sonar to map the seafloor and to aid in the search and rescue operations of drowning victims. To get to know me more, please check out my new website gabrielforsberg.com!



TECHNICAL SKILLS

Languages: Python, C++, MATLAB Robotics: ROS, OpenDLV Tools: Docker, Git, Linux, CAD, Microservices
ML: PyTorch, TensorFlow, OpenCV Web: Next.js, HTML/CSS

EDUCATION

CHALMERS TECHNICAL UNIVERSITY

Master of Science

Gothenburg, Sweden
Expected June 2026

Major in Complex Adaptive Systems

Coursework: Data Analysis, Artificial Intelligence, Algorithms and Data Structures, Autonomous Robots, Humanoid Robots, Stochastic Optimization, Simulation of Complex Systems, Data Driven Product Realization.

CHALMERS TECHNICAL UNIVERSITY

Bachelor of Engineering

Gothenburg, Sweden
Aug 2019 – Jun 2024

Major in Biomedical Engineering

Coursework: Clinical Studies and Ethics, Image Processing, Neural Engineering, Biomedical Instrumentation & Electronics, Electromagnetic compatibility.

UNIVERSITY PROJECTS

AI INSIGTS FROM MANUFACTURING DATA

November 2025

- Utilized recent developments in Large Language Models (LLMs) in combination with RAG techniques to provide user friendly factory insights (e.g. suggested corrective actions, top value impacts and top positive and negative trends).
- Trained on large sets of cross-industry manufacturing data spanning multiple years in collaboration with a major OEE tracking industry partner
- Created a custom interactive dashboard environment

AUTONOMOUS HUMAN INSPIRED ROBOTIC ARM

September 2025

- Designed and 3D printed an autonomous robotic arm, capable of dexterous grasping with pressure sensitivity for objects of varying size and shape
- Used state-of-the-art YOLO and Open-Vocabulary models in combination with an ANN inverse kinematics model to achieve mm precision object localization and detection

AUTOMATIC HEMORRHAGE DETECTION & CLASSIFICATION

May 2025

- Developed a novel convolutional neural network sequence model using Python and PyTorch, trained on a large dataset of 5 different types of intracranial hemorrhages, capable of both localization and classification
- Achieved high diagnostic accuracy while providing interpretable heatmaps of regions where a bleed is thought to be present

KIWI D1 — AN AUTNOMOUS DIFFERENTIALLY STEERED ROBOT

April 2025

- Utilized a microservice architecture to develop, simulate, replay and test an autonomous differentially steered robot. Written in both Python and C++.
- Only team to complete the final test track in a completely new environment and set a new official lap time (out of 16 teams)

References sent on request

RECENT WORK EXPERIENCE

STRÖMMA AB

Able Seaman

Gothenburg, Sweden

Apr 2024 – Aug 2024

- Responsible for vessel operations, passenger safety, and onboard technical procedures together with the captain
- Performed navigation support, maintenance tasks, and safety operations in a commercial passenger environment

STIFTELSEN LÄXHJÄLPEN

Teacher (Evening Classes)

Gothenburg, Sweden

Mar 2023 – Oct 2024

- Taught a class of ~15 students in the age of 13–16, focusing on fundamental knowledge in core subjects (math, natural sciences, English)

EXTRACURRICULAR

PERSONAL WEBSITE

gabrielforsberg.com

- A portfolio and blog website detailing personal and curricular related projects involving machine learning, CI/CD, microservices, 3d printing and more
- Built from scratch using Payload Headless CMS and Next.js at zero cost

ADDITIONAL

Languages: Fluent in Swedish and English

Certifications: STCW: Basic safety; Crowd Management; IPSP Designated Security duties; Ordinary Seaman

Other: Driver's license (B)