Eirik VARNES
Student

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- Møllehagen 2, 4120 Tau
- Born 09.11.1999, Norway

Master's student in Engineering and ICT at NTNU with practical experience developing intelligent and autonomous systems, from robotics and AI-driven applications to advanced control solutions. Reliable and self-driven, with a proven ability to lead large teams, deliver complex projects, and apply my skills to create technology with impact.

🎓 EDUCATION

| 2021 – 2026 | Master of Technology in Engineering and ICT, Norwegian University of Science and Technology, Trondheim, Norway |
| 2020 – 2021 | Materials Technology, Norwegian University of Science and Technology, Trondheim, Norway, |

💼 PROFESSIONAL EXPERIENCE

Summer 2025 — **Summer Intern – Software Development, BOUVET, Stavanger, Norway**
- › Developed a system that analyses images to gather information about buildings.
- › Implemented computer vision, object detection, and segmentation techniques for automated image processing.

Summer 2024 — **Summer Intern – Subsea Robotics, TOTALENERGIES, Stavanger**
- › Built a digital simulation to test and improve a subsea sensor system.
- › Collected and processed sensor data, finding insights that hadn't been seen before.
- › Helped plan and carry out safe and efficient field tests.

December 2023 / January 2023 — **Elected Student Representative, NTNU, Trondheim**
- › Represented students in meetings so their feedback actually shaped decisions.
- › Handled sensitive topics with trust and confidentiality.

August 2023 / March 2020 — **Assistant & Acting Manager / Project Employee, VESTKORN, Tau**
- › Operated machinery and equipment in the packaging department.
- › Coordinated daily operations in the packaging department.
- › Assisted in managing and overseeing the workflow.

✔ PROJECT EXPERIENCE

Robotics & Autonomy

- › **Autonomous Vehicle Development :** Designed, 3D-printed, and assembled an autonomous, camera-guided vehicle from scratch, capable of navigating and completing tasks without human intervention.

- › **ROV Control System Development :** Created a realistic ROV simulation with real kinematics and implemented a controller to stabilize it under wave and current disturbances.

- › **ROS Simulation – Autonomous Robotics :** Developed a ROS simulation for a service robot, enabling mapping, navigation, and pick-and-place tasks.

- › **Reinforcement Learning for Navigation :** Trained AI agents to navigate using simulated sonar data in a physics-based vehicle environment.

- › **Robotic Vision :** Created a robotic arm simulation that follows human hand movements in real-time.

- › **Helicopter Control Lab :** Designed and tuned controllers to stabilize a lab-scale helicopter, applying different techniques tailored to data from various sensor types.

Artificial Intelligence & Data Science

> **Solar Power Prediction :** Developed a predictive model for solar power output using real-world datasets, improving accuracy through data cleaning, trend analysis, and feature refinement.

> **Smartwatch Data Integration :** Enhanced diabetes prediction models by integrating smartwatch activity, insulin dosage, and glucose readings, applying data analysis to identify patterns and improve accuracy.

> **Football Analysis :** Applied AI-based object tracking and keypoint detection to analyze football matches from video footage, enabling precise player positioning and movement analysis.

> **Multi-Agent Coding Assistant :** Designed and implemented an AI assistant with specialized agents for code retrieval, generation, and testing, using advanced coordination and automation techniques.

📢 STUDENT ASSOCIATION

> **Industry Contact** – Connected students with companies in the field.

> **IV-dagene Career Days** – Part of the logistics team, handling event setup, scheduling, and coordination.

> **Head of Welcoming Committee** – Led the two-week student introduction program, coordinating over 100 volunteers to welcome and integrate new students socially and academically.

> **Purchasing Manager** – Bought supplies and managed stock for a student bar.

> **Organizational Restructuring** – Led work to improve how the association was organized.

✚ VOLUNTEER EXPERIENCE

> **Norsk Folkehjelp** – Active member in mountain search and rescue, first aid response, event safety, and medical support. Trusted with high-responsibility tasks and committed to serving the local community.

66 REFERENCES

Provided upon request