

SAAD MAHBOOB

Senior Robotics Engineer · Product owner, fleet management · Humanoids next

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PROFILE

Robotics engineer who builds robot products and takes them to customers. Took three products from business case to customer and now owns fleet management as a product, including a weekly release train automated end to end. Led the Rohlik Group deployment on site, later as project manager; passed 9+ Site Acceptance Tests and lifted warehouse throughput by about 60%. Hands-on with Unitree H1 and G1 humanoids, from teleoperation to a live investor demo. Looking for product roles in humanoids and robotics.

PRODUCT HIGHLIGHTS

- Three products, business case to customer:** chilled picking from business case to SAT (scan rate up to 96%, >97% uptime running 24/7); fashion picking (shoebox gripper, scan table, and bag-opener control software for Zalando and CEVA returns); and a plug-and-play smart signal controller taken from concept to sale.
- Fleet management, owned as a product:** a fleet rollout console (one screen replacing SSH sessions and hand-edited files; runs two product lines), a deployment wizard for guided station setup (used on three customer deployments), automated daily customer reports, and an L1 AI support agent (ticket to root-cause report in 2–5 min).
- Weekly release train, automated end to end:** one click sends a release, tested overnight in simulation and on real robots, to Customer Success for sign-off; it then ships automatically on release day, canary robots first, with automatic rollback.
- Rohlik Group deployment:** six months embedded on site, then project manager after the lead’s departure, with 3–4 stakeholder meetings daily from warehouse operations to C-suite. Increased warehouse throughput by about 60% by profiling the pick pipeline and parallelizing execution, despite a tight site layout; wrote the operator playbook that covers 98% of daily situations.

HUMANOID & MANIPULATION HIGHLIGHTS

- Humanoid demo owner (Unitree H1/G1):** built precise whole-arm teleoperation with twist2, led collection and curation of demonstration data, and integrated NVIDIA GR00T for on-board inference, culminating in a live demo (unboxing and retrieving shoes) for a VC funding round. Scoped six humanoid use cases across warehouse and retail.
- Manipulation stack from scratch:** architected the complete depalletization pipeline (gripper integration, 6-DOF grasp generation, placement logic and execution flow), now running in production across multiple customer sites.
- Hardware breadth:** integrated and deployed grippers and arms across Unitree humanoids, UR10, Yaskawa and ABB IRB 120; took a new shoebox gripper from demo to product, opening a new market segment.

EXPERIENCE

Senior Robotics Engineer, Sereact · Stuttgart, Germany Feb 2025 – Present

- Supervised and passed 9+ Site Acceptance Tests on site, and took two stations live in 3 days with SAT passed within 5.
- Introduced and productionized repick across the customer fleet, measurably raising pick success rate; drove automated decanting detection and bag-placement initiatives supporting 10s of live stations; and represented the company solo at LogiMAT.
- Technical lead for an on-premise vision-language model live on every pick cycle; stood in as lead of a core robot software team; onboarded 10+ new joiners and ran live-coding and ML interviews.

Computer Vision Engineer, TVConal · Singapore (remote) Feb 2023 – Jan 2025

- Built real-time sports tracking with 10x faster TensorRT inference, plus multi-camera ball trajectories for decision reviews.
- Led a team delivering a 30 fps player-tracking UI and generative-AI widgets for FireTV, lifting user engagement 700%.

Deep Learning & Swarm Intelligence Intern, public-sector research lab Jul 2021 – Oct 2022

- Swarm GNNs for multi-agent prediction, PSO and ACO swarming in Gazebo and ROS, and UAV swarm flights on PX4.

SKILLS

Product & delivery	Product ownership, business cases, release management, site acceptance testing, stakeholder management, operator training, customer feedback loops
Humanoid & manipulation	Unitree G1/H1, teleoperation (twist2), imitation-learning data collection, NVIDIA GR00T, 6-DOF grasp generation, placement planning, gripper design and integration
Robotics core	ROS 2, behavior trees, ORB-SLAM3, motion planning, UR10, Yaskawa, ABB IRB 120, Jetson, ESP32
ML & vision	PyTorch, TensorRT, OpenCV, graph neural networks, vision-language models, generative AI
Software & ops	Python (expert), C++, Docker, FastAPI, RabbitMQ, Git, CI-minded deployment

EDUCATION & CERTIFICATIONS

MSc Robotics, Middlesex University, London	2023 – 2024
BSc Electrical & Electronics Engineering, FAST-NUCES, Islamabad · academic award at graduation	2019 – 2023
Deep Learning Specialization (Andrew Ng) · MLOps: Machine Learning Engineering for Production	