

# Wallace Peck

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## PROFILE

Third Year Computer Science student with a specialisation in Artificial Intelligence, looking to leverage my technical expertise in Machine Learning to enhance Embodied AI platforms and foster Human-Robot collaboration. Fast learner and adept debugger. Strong work ethic and thrives in collaborative environments.

## TECHNICAL SKILLS

- **Programming Languages:** Java, Python, C++, C#, TypeScript
- **Frameworks:** ROS/ROS2, Webots, PyTorch, OpenCV, Docker, Git, React

## EDUCATION

**National University of Singapore (NUS) | Singapore** **Aug 2023 - Dec 2027**

- Bachelor of Computing in Computer Science, specialisation in Artificial Intelligence **GPA: 4.24**
- **Relevant Courses:** Software Engineering (CI/CD), Foundations of Artificial Intelligence, Foundations of Machine Learning

## WORK EXPERIENCE

**Full Stack Developer | Lynk International | Singapore** **Jul 2025 - Present**

- Set up Containerised back-end services to deploy in minutes with a consistent runtime environment
- Isolated Production, Testing and Development environments to increase tempo and reduce downtime
- Minimal cloud knowledge to secure and scalable deployment on AWS Cloud in one month

**Vehicle Technician | RSAF | Singapore** **Dec 2021 - May 2023**

- Identified complex faults within minutes by analysing readouts from vehicle diagnostics equipment
- Developed an automatic script in VBA to forecast preventive maintenance milestones and track lapses
- Collated 1 year of records in PowerBI to analyse common faults, repair times and logistics burden across 6 distinct vehicle models
- Awarded Best Technician Award, Best Airman Award

## PROJECTS

**Ultimate Tic-Tac-Toe Agent | National University of Singapore** **March 2025 - April 2025**

- Designed game interface with debug overlays to greatly speed up troubleshooting
- Sourced larger external dataset for higher quality training, modified training script for different state representation
- Scaled down existing model by 98% from 5M to 100K parameters, adapted architecture from proven models (AlphaGo, Mobilenet) to improve performance and throughput
- 100% Winrate against several high-performing analytical models, achieved parity with larger 5M model
- Attained 2<sup>nd</sup> place in intra-course competition, excellent qualitative feedback from professors

**Human and Objects Detection for Robotics Social Navigation | Ngee Ann Polytechnic** **Apr 2020 - Apr 2021**

- Programmed a small, wheeled robot base with SR305 or ZED 2 vision sensor combined with Nvidia Jetson Nano to create a social navigation agent
- Implemented an obstacle avoidance algorithm from research paper for smooth and safe navigation without occupancy maps
- Designed and marshalled a multi-language multi-process network on Linux using ROS to handle sensor-fusion, path planning and differential drive controller