

# JOHNNY CHAN

also known as Zhe Chen

Robotics Software Engineer | Python Developer | AI-assisted Engineering Workflow

## DETAILS

Kuala Lumpur, Malaysia  
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## SKILLS

### Programming

Python, C++, JavaScript, HTML/CSS, MATLAB

### Robotics

ROS Noetic, Gazebo, RViz, UAV simulation, path planning, PX4 (learning)

### AI workflow

ChatGPT, Claude, OpenAI Codex, GitHub Copilot, Markdown, Git

### Software

Linux/Ubuntu, SQL basics, REST API basics, SQLite concepts, documentation

### Languages

Chinese native, English advanced IELTS 7.0/C1, Bahasa Melayu beginner

## SUMMARY

Computer Science PhD candidate focused on robotics software, UAV autonomy, Python/ROS simulation, and AI-assisted engineering workflows. I build reviewable systems, technical documentation, and handoff material that help research prototypes become usable software.

## EXPERIENCE

### Research Engineer / PhD Candidate & Lab Coordinator 2026 - Present

*Robotedge Laboratory, Universiti Malaya - Malaysia*

- Built and reviewed Python/ROS/Gazebo workflows for UAV autonomy, simulation, and robotics software study.
- Coordinated Robotedge Lab workflow by translating research goals into tasks, validation notes, documentation, and reviewable outputs.
- Designed an AI-assisted engineering workflow using ChatGPT, Claude, and OpenAI Codex for coding support, documentation, and experiment tracking.

### Robotics Software Development and Simulation 2023 - 2025

*Independent / Visiting Research Track - Malaysia / China*

- Built UAV simulation environments for formation control, obstacle avoidance, and path-planning study.
- Reproduced and analyzed EGO-Planner and EGO-Swarm workflows with ROS Noetic, Gazebo, RViz, Python, and C++.

### R&D Project Engineer / Technical Coordinator 2021 - 2025

*Suzhou Xili Textile / Sushanjin Biotechnology - China*

- Developed data logging and quality-control reporting workflows with Python and spreadsheet automation.
- Coordinated cross-department R&D delivery across technical, design, supplier, and production stakeholders.

## SELECTED PROJECTS

### UAV Simulation Platform

ROS Noetic, Gazebo, RViz, Python, C++, Linux

### AI-assisted Engineering Workflow

OpenAI Codex, Claude, ChatGPT, Git, Markdown

### Personal Technical Website

HTML, CSS, JavaScript, bilingual responsive UI, resume download

### Industrial Vision Evaluation

AI vision route evaluation, supplier comparison, integration planning

## EDUCATION

### PhD in Computer Science 2026 - Present

Universiti Malaya, Department of AI, FCSIT

### M.Eng. in Mechanical Engineering 2016 - 2019

Xinjiang University, China

### B.Eng. in Mechanical Engineering 2012 - 2016

Xinjiang University, China