

Junyuan Fang

SOFTWARE DEVELOPMENT · MULTIMODAL · DEEP LEARNING

Helsinki, Finland

 Github |  LinkedIn

Education

University of Helsinki

Helsinki, Finland

MASTER OF SCIENCE IN COMPUTER SCIENCE

2023 – 2025 (Feb. Expected)

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

2021 – 2023

National University of Singapore (NUS)

Singapore

EXCHANGE IN COMPUTER SCIENCE BACHELOR STUDY

2022

Projects

End to end 3D scene reconstruction & open vocabulary understanding @AaltoVision

- Used 2D vision language LLM and novel reconstruction model implemented 3D point cloud reconstruction with language feature embeddings in 3D, both 3D reconstruction and 3D segmentation can be accomplished in real time.
- Used Gradio to implement interactional 3D scene open vocabulary semantic segmentation and point cloud reconstruction demo.
- Paper “NVSMask3D: Hard Visual Prompting with Camera Pose Interpolation for 3D Open Vocabulary Instance Segmentation” under review
- Paper [Gaussian Splatting in Mirrors](#) accepted to BMVC

Restaurant page @ Huaren Finland Oy

- React + Material UI
- Utilized GitHub Pages for seamless deployment and hosting, ensuring easy updates and scalability.
- Implemented a web scraping tool (Python) to automatically fetch restaurant menus from Wolt, integrating the data into the site for up-to-date content.
- Created a user-friendly interface with real-time updates, providing visitors with essential restaurant information and menu options. on github.io from private to public CI/CD

10-person team project: Competency, Allocation and Skill tracker @ Eficode Oy

- Helped DevOps consulting company Eficode Oy design a company internal task allocation web application in 10-person small team.
- Built user's Google authentication (Google platform) from scratch to meet the need for cross-platform login.
- Designed single-page web application with React's Material UI from scratch to avoid massive information exchange.
- Contributed to frontend tests using Robot Framework.
- Implemented Django backend APIs and unit tests.
- Utilized Agile methodology, specifically Scrum, in our team development.

Mailogy @Interactional design

- With the final experience and feedback from users, our 5-person team designed a more optimized way of browsing emails for mobile users. Contributed to contextual inquiry and user analysis. Conducted user interviews and questionnaires to understand user needs and pain points.
- Created low-fidelity and high-fidelity wireframes and prototypes to ensure that the design meets user requirements and project goals.
- Organized and execute user tests, collect feedback and make iterative improvements.

2D-game @Object oriented C++

- Contributed to the design idea of side-scrolling C++ game. Handled different level software unit tests, integration tests and GUI tests inside the Qt widget.

Internships

Computer Vision Research Intern @ AaltoVision

Helsinki, Finland

SUPERVISOR: JUHO KANNALA

June.2023 – Present

- Contributed to the development of various 3D vision projects and 3D vision+language projects. Published one paper with the topic of novel view synthesis in reflective condition.
- Published another paper with the topic of open vocabulary 3D instance segmentation (under review).

- Expertised at different modalities’(image, point cloud, text) alignment for downstream tasks.

Skills

Programming Languages	C/C++, Python, Rust, ARM, others with the help of LLMs :)
Software Development	Docker, Google platform, React, Figma, Qt, RobotFramework, PostgreSQL, Flask, MySQL, Django, JavaScript, HTML, CSS
Machine Learning	Gradio, PyTorch, TensorFlow, Wandb, Keras, Pysyft
Language	Chinese (native), Finnish (professional), English (professional), Swedish (beginner)
Management & Tools	Git, Poetry, LATEX, Hydra
JULY, 2024	J.FANG · CURRICULUM VITAE