ZEYING GONG

☎ +86 15986856182

✉ zgong313@connect.hkust-gz.edu.cn

in https://www.linkedin.com/in/zeying-gong/

👤 https://zeying-gong.github.io/about/

EDUCATION

The Hong Kong University of Science and Technology (Guangzhou)	Oct. 2022 – Till Now
Artificial Intelligence	GPA: 4.0/4.0, Top 5%
Sun Yat-sen University	Sept. 2017 – June 2021
Electronic Information	GPA: 3.8/4.0, Top 30%

WORK EXPERIENCE

Algorithm Engineer (Intern)	May 2023 – Till Now
Jacobi.ai	Guangzhou, China

Assisted the startup with success in the seed round and the angel round.

1. **Vision Algorithm Development:** Develop an image compression algorithm, collaborating with departments to achieve an "Embodied Intelligence" solution for supermarket scenarios.
2. **Language Algorithm Development:** Develop a language model based on local knowledge documents, which can achieve offline deployment and customized Q&A requirements.

5G Network Planning and Optimization Engineer (Full-time)	Aug. 2021 – Oct. 2022
Huawei Technologies Co., Ltd.	Dongguan, China

Assisted our team in achieving the provincial capital network quality ranking among the top 5 nationwide. Personally awarded "Huawei Future Star" in 2021 and both "A" levels in 2021 and 2022.

1. **Provincial Railway Network Renovation:** Responsible for the renovation of 4G base stations and the construction of 5G base stations along the high-speed railway in Jiangxi Province.
2. **5G Antenna Application Implementation:** Collaborated with the R&D center in the China region, responsible for the application of new 5G technologies at the city level for China Mobile.
3. **Network Assurance and Optimization:** Responsible for the stable operation of networks in the provincial capital Nanchang and the city of Shangrao.

PUBLICATIONS

1. **Z Gong,** B Rao. "Cluster Unmanned Aerial Vehicle Electromagnetic Calculations and Applications" 2021 CIE International Conference on Radar (Radar), 1196-1199. URL: ieeexplore.ieee.org/abstract/document/10027968
2. **Z Gong,** Y Tang, J Liang. "PatchMixer: A Patch-Mixing Architecture for Long-Term Time Series Forecasting". arXiv preprint, 2023, URL: arxiv.org/abs/2310.00655 (Submitted to ICLR'24).
3. Y Tang, J Zhou, X Pan, **Z Gong,** J Liang. "PostRainBench: A comprehensive benchmark and a new model for precipitation forecasting". arXiv preprint, 2023, URL: arxiv.org/abs/2310.02676 (Submitted to ICLR'24).

i. "Embodied Intelligence" Supermarket Scenario Solution
Algorithm Engineer

July 2023 – Till Now
Jacobi.ai

Project Description: In response to the image transmission capacity needs of enterprises.

Project Responsibilities:

- Preliminary Phase: Conduct research on existing image compression and reconstruction algorithms.
- Process: Responsible for method implementation, experimental verification, and paper writing.
- Final Phase: Coordinate with other departments and collaborate with the team to integrate the algorithm with object detection algorithms and the large language model (LLM).

Project Achievements: The demo contributed to the company's successful fundraising. Successfully applied to unmanned vending robots in a supermarket.

ii. Chatbot Based on Local Knowledge Documents
Algorithm Engineer

May 2023 – July 2023
Jacobi.ai

Project Description: Referring to ChatGPT, implement a large language model application.

Project Responsibilities:

- Preliminary Phase: Conducting requirement research, project design, and technical analysis.
- Process: Responsible for code writing and technical implementation.
- Final Phase: Responsible for the preparation of technical cases.

Project Achievements: The demo shows it can achieve offline private deployment and also support the debugging of open-source LLMs (such as OpenAI's GPT, Meta's LLaMA, etc.)

iii. Provincial High-speed Railway Network Renovation and Construction
Head of Network Performance Technology

July 2022 – Oct. 2022
Huawei Technologies Co., Ltd.

Project Description: A pilot project was crafted for the network of two railway lines in Jiangxi.

Project Responsibilities:

- Preliminary Phase: Responsible for developing base station network planning and optimization.
- Process: Collaborated with the head of the provincial mobile network department, applying high-speed railway scenario solutions to optimize network and voice experience.
- Final Phase: Invited customers to experience the network performance and report regularly.

Project Achievements: The project was delivered smoothly and on schedule, constructing Jiangxi's first 5G railway network. Further led to the signing of the subsequent project on the scale of tens of millions.

iv. Cluster UAV Electromagnetic Calculations and Applications
Project Manager and First Author

Mar. 2021 – Dec. 2021
Sun Yat-sen University

Project Description: In accordance with the requirements of the Intelligent Perception Laboratory.

Project Responsibilities:

- Preliminary Phase: Researched two mainstream drone models and established a research framework.
- Process: Responsible for method implementation, experimental verification, and paper writing.
- Final Phase: Prepared reporting materials and applied for relevant patents.

Project Achievements: The paper was published in CIE Radar 2021 proceedings with a public patent.

HONORS AND AWARDS

Algorithm Challenge Excellence Award · May 2023

Recognition for top 10 of contestants in Shandong Provincial Meteorological Algorithm Challenge

Campus Squash Champion · Mar. 2023

Recognition for top 1 in Campus Squash Tournament at HKUST

Outstanding Individual in 2022 H1 · Aug. 2022

Awarded to the top 10 company employees in Jiangxi Office at Huawei

Huawei Future Star · Dec. 2021

Awarded to the top 20% of group employees

Academic Progress Award · Dec. 2019

Ranking within the top 20% for progress more than at SYSU

The 3rd Prize · Sept. 2019

Guangdong Province Division of the National College Student Electronic Design Competition