Siqing Zhang

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PERSONAL PROFILE

I am a Master of Information Technology graduate with a robust background in engineering and coding, seeking an opportunity to thrive in collaborative environments and commit to delivering strong results. With a passion for logic and problem solving, I am an enthusiastic team player eager to contribute to an engineering position within an organization that is poised to shape the future.

EDUCATION

The University of New South Wales — *Kensington, NSW, AU*
Master of Information Technology (With Excellence) WAM : 83 — *Feb 2022 - Jan 2024*

Northwestern Polytechnical University (ARWU top 200, 985 Project) — *Xi'an, P.R.China*
Bachelor of Engineering - Electronics Information Engineering(USNEWS: 15th in world) — *July 2016 - June 2020*

SKILLS SUMMARY

Languages:
C++, C, Python, HTML/CSS, JavaScript, SQL, Rust, Java

Frameworks and Libraries:
HDFS, Spark, PyTorch, TensorFlow, Scikit, OpenCV, PointCloud, ReactJS, NodeJS, SpringBoot, Catch2, Bazel

Development Tools:
Matlab, PostgreSQL, MongoDB, Flask, Halcon, Unreal

WORKING EXPERIENCE

Shenzhen Cognvison Tech Inc. — *Shenzhen, P.R. China*
Computer Vision Algorithm Engineering Intern — *Dec. 2020 - May 2021*

- Developed solutions for PCB resin plug hole detection, collaborating with university teams and factories to enhance data collection and algorithm optimization.
- Managed CNN model training, prepared datasets, and enhanced forum performance.
- Designed algorithms for automated optical inspection.

PROJECTS

Bicycle Trajectory Planning in Map Matching ⭮ — *Ongoing*
Leader of a research group in collaboration with the Delft University of Tech. Using kD-tree and bicycle trajectory with an improved swift comparing algorithm to match a feasible path within Zuid Holland where roads are complex and dense.

A Relational Database System ⭮ — *Dec 2023*
Implement a database system in C with methods such as JOIN and SELECT, similar to PostgreSQL.

A Rip-off Version of the Popular Messaging Tool Slack ⭮ — *Dec 2023*
An application with basic functions of slack.

A Rip-off P2P Property Renting Service AirBrB ⭮ — *Dec 2023*
A ReactJS application that mirrors the fundamental features of Airbnb.

A Computer Vision Project for Pneumonia Detection from CT Chest Scans ⭮ — *Sep 2023*
A neural network-based visual algorithm to detect pneumonia in CT images.

Database Management System ⭮ — *May 2023*
Implement a database system in C with methods such as JOIN and SELECT, similar to PostgreSQL.

A Dataflow Pipeline ⭮ — *May 2023*
A simplified dataflow pipeline library, making use of both static polymorphism (templates) and dynamic polymorphism (virtual functions and inheritance).

Filtered std::string_view ⭮ — *May 2023*
Implement the functionality of string_view in C++17 and ensure that it supports filtering based on the provided criteria.

Pre-computed Index of Eccentricity for Temporal Graph ⭮ — *Dec 2023*
Created a pre-computed index using C++ to query the eccentricity of each vertex in a temporal graph, frequently utilized in database analysis.

6D Pose Estimation of Underwater Rigid Body Based on Binocular Vision — *Dec 2021*
Developed a stereo matching and deep learning algorithm using a binocular camera, employing technologies such as OpenCV, PCL, PyTorch, C++, and Python.

Driver Fatigue Monitoring System Based on Intelligent Terminal
National-level College Student Innovation Training Program, Ministry of Education P.R.China.
Designed and trained an algorithm using video data to monitor driver fatigue status during driving.   *May 2020*

I/Q Modulation Technology Based on Microwave Photonics
National-level College Student Innovation Training Program, Ministry of Education P.R.China.
Explored microwave photon orthogonal optical communication modulation using the Mach-Zehnder modulator.   *May 2020*

Honors and Awards

Mathematical Modeling Warm-up Competition of NPU, First Prize	*2019*
Excellent Student of School of Electronic and Information	*2018*
Outstanding Volunteer of Shaanxi History Museum	*2017*

Others Experience

Shaanxi History Museum   *Xi'an, P.R.China*
Vice Captain of Volunteer Team   *Oct. 2016 - Dec. 2019*
  Service: Arrange volunteer activities & Provide free cultural relics explanation and service to the community.