RAY(LEI) ZHANG

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EDUCATION

Fudan University, Shanghai, China *2018 - Present*
D.Eng in Electronics and Information **GPA: 3.5/4**

University of Shanghai for Science and Technology, China *2015 - 2018*
MA in Computer Technology

Jiangsu University, China *2011 - 2015*
B.S in Software Engineering

SKILLS & INTEREST

Software: Python, Matlab, C++, Java, Linux, Git, Pytorch, etc.

Research Area: Robotics Vision, Medical Imaging, Machine Learning, Synthesis

SELECTED PUBLICATIONS

1. Zhang L, Shang H, Lin Y. A novel distribution for representation of 6D pose uncertainty. Micromachines. 2022;13(1).

2. Zhang L, Wu L, Wei L, Wu H, Lin Y. A novel framework of manifold learning cascade-clustering for the informative frame selection. Diagnostics. 2023;13(6).

3. A Lightweight Subgraph-Based Deep Learning Approach for Fall Recognition. Sensors. 2022; 22(15).

4. Transformer for Computer-Aided Diagnosis of Laryngeal Carcinoma in pCLE Images. IConSCEPT. 2023; 25-26.

5. Transformer for Computer-Aided Diagnosis of Laryngeal Carcinoma in pCLE Images. INSAI. 2022.

PROJECTS

1. An Indoor Localization Application in Emerson Factory
Project Officer, University of Shanghai for Science and Technology

Developed a GUI with a map function that could display the position in real time. In terms of hardware, integrated a GPS module to the WirelessHART node.

Developed an algorithm to analyze the collected data, meanwhile integrated OPC module communication with the gateway.

2. Data Monitoring Platform for Wine Industry
Project Assistant, University of Shanghai for Science and Technology

Worked with a team of three to develop a B/S platform, database, and algorithm for over 200 winery users and government officers, optimized SQL storage structure for limited searching time, automatically generate the production and sales reports by region, season, month or year and display it to the local officers.

3. Grasping Novel Objects Using Unstructured Scenarios
Project Officer, Fudan University, Video

Developed a vision algorithm based on point cloud that generates 6-DoF grasp hypotheses and used a deep-learning approach to get the optimum grasping pose by an Intel *Realsense* 3D camera.

WORK EXPERIENCE

INSAI Lab, Fudan University, Shanghai **2020 - 2020**
DevOps Engineer

· ***I've been a Genius at INSAI Lab of Fudan (one of the ones who help you when you encounter problems with Linux). I have a good intuition for solving different bugs with public resources. Due to the conv19, lots of researchers and students had to work at home. As a software engineering student. I am responsible for the DevOps Engineering duty and supply the deep learning environment for grad and doctorate students to train their models.***

- **Help other students quickly to get started with my working experience.**
- **Create an Engineer WIKI that guides the users**

Roadefend, Shanghai **2019 - 2019**
Algorithm Engineer Intern

· ***Worked with the project leader to implement a face recognition algorithm on a DMS(driver monitoring system) device, including data cleaning, model training and algorithm evaluation.***

- **Developed the face recognition algorithm on DMS(driver monitoring system) by Python and C++**
- **Trained models with mobilenetv2 on MXNet**

Kyligence, Shanghai **2017 - 2018**
Data Engineer Intern

· ***Worked with a team of Development and Operations for Kylin(An online language analysis platform) on building an automation platform at AWS and Azure for log analysis.***

- **DevOps Kylin (Apache Opensource) on AWS and Azure**
- **Deploy an architecture of Kylin log on the cloud by ELK**

AwiaTech China, Shanghai **2015 - 2017**
Software Engineering Intern

- **Replicated a host application for monitoring WirelessHART devices with Java Swing technology.**
- **A customized host application that implements WirelessHart host communication with a PLC device based on observer pattern.**
- **Leading a project that cooperated with China Petroleum to upgrade its field instruments to support the WirelessHART protocol. Meanwhile, I developed an IoT monitoring system to predict the status of devices and alert them before the error.**

HONORS & CERTIFICATIONS

2016 Second Prize in the Industrial Internet of Things Competition in Yinchuan

2017 Second Prize in the International Innovation and Entrepreneurship Competition in Shanxi

SG Healthcare AI Datathon EXPO. 2022

Machine Learning. Coursera. 2023

Deep Learning Specialization. Coursera. 2020

Robotics Software Engineer Nanodegree. Udacity. 2020