RAY LEI ZHANG

Kaggle Github

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SUMMARY

Experienced in cutting-edge technologies at the intersection of Web3 and AI, adept at leveraging Python, Matlab, C++, Java, and Linux to drive innovation. Proficient in Git for version control and Pytorch for deep learning model development. Specialized in robotics vision, medical imaging, and machine learning, with a knack for synthesizing complex concepts into actionable solutions. Strong problem-solving skills, adaptable to dynamic environments, and effective collaborator with a knack for creative problem-solving.

SKILLS

- **Git**
- **C++**
- **Java**
- **Linux**
- **Matlab**
- **Python**

- **Pytorch**
- **Creativity**
- **Adaptability**
- **Collaboration**
- **Communication**
- **Problem-Solving**

EXPERIENCE

DevOps Engineer / INSAI Lab, Fudan University, Shanghai   *01/2020 - 01/2020*

- Provided expert support as a DevOps Engineer at INSAI Lab of Fudan, assisting users with Linux-related issues and demonstrating proficiency in troubleshooting various bugs using publicly available resources.
- Adapted to the challenges posed by the COVID-19 pandemic by taking on the responsibility of supplying deep learning environments for graduate and doctoral students working remotely, ensuring uninterrupted access to necessary resources for model training.
- Facilitated the onboarding process for other students by leveraging my extensive working experience, enabling them to quickly familiarize themselves with essential tools and workflows.
- Initiated the creation of an Engineer WIKI, serving as a comprehensive guide for users, thereby enhancing knowledge sharing and streamlining access to critical information for effective DevOps practices.
- Demonstrated a strong intuition for problem-solving, consistently delivering efficient solutions to technical challenges encountered by users, contributing to the smooth operation of DevOps processes within the lab environment.

Algorithm Engineer Intern / Roadefend, Shanghai   *01/2019 - 01/2019*

- Collaborated with project leader to implement a face recognition algorithm for a Driver Monitoring System (DMS) device, involving tasks such as data cleaning, model training, and algorithm evaluation.
- Utilized Python and C++ programming languages to develop and optimize the face recognition algorithm specifically tailored for DMS.
- Applied machine learning techniques, particularly training models with Mobilenetv2 architecture, using MXNet framework to enhance the algorithm's performance and efficiency.
- Contributed to the integration of the developed algorithm into the DMS device, ensuring seamless functionality and compatibility.
- Participated in algorithm evaluation processes, analyzing performance metrics and providing insights for further refinement and optimization.

Data Engineer Intern / Kyligence, Shanghai   *01/2017 - 01/2018*

- Collaborated with Development and Operations teams to develop and implement an automation platform for log analysis on AWS and Azure, enhancing efficiency and scalability.
- Utilized DevOps practices to configure and manage Kylin (Apache Opensource) on both AWS and Azure cloud environments, ensuring seamless integration and optimal performance.
- Spearheaded the deployment of a scalable architecture for Kylin log analysis using ELK (Elasticsearch, Logstash, Kibana) stack, facilitating real-time data processing and visualization.

- Contributed to the design and implementation of cloud-based solutions for log analysis, leveraging AWS and Azure services to achieve high availability and reliability.
- Played a key role in troubleshooting and resolving issues related to the Kylin log analysis platform, ensuring smooth operation and minimal downtime.

Software Engineering Intern / AwiaTech China, Shanghai   *01/2015 - 01/2017*

- Developed a Java Swing application to replicate a host application for monitoring WirelessHART devices, enhancing understanding of GUI development and communication protocols.
- Implemented a customized host application utilizing the observer pattern to facilitate WirelessHART host communication with a PLC device, demonstrating proficiency in software design patterns and integration.
- Led a project in collaboration with China Petroleum to upgrade field instruments to support the WirelessHART protocol, gaining experience in project management and cross-cultural communication.
- Spearheaded the development of an IoT monitoring system to predict device statuses and preemptively alert errors, showcasing skills in software development, data analysis, and system design.
- Collaborated with team members to troubleshoot technical issues, propose innovative solutions, and ensure project milestones were met, fostering teamwork and problem-solving abilities.

EDUCATION AND TRAINING

D.Eng in Electronics And Information   *2018*
Fudan University, Shanghai - China

Master of Arts: Computer Technology   *2018*
University of Shanghai For Science And Technology - China

Bachelor of Science: Software Engineering   *2015*

Jiangsu University - China

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

SELECTED PUBLICATIONS

- Zhang L, Shang H, Lin Y. A novel distribution for representation of 6D poses uncertainty. Micromachines. 2022;13(1).
- Zhang L, Wu L, Wei L, Wu H, Lin Y. A novel framework of manifold learning cascadeclustering for the informative frame selection. Diagnostics. 2023;13(6).
- A Lightweight Subgraph-Based Deep Learning Approach for Fall Recognition. Sensors. 2022; 22(15).
- Transformer for Computer-Aided Diagnosis of Laryngeal Carcinoma in pCLE Images. IConSCEPT. 2023; 25-26.
- Transformer for Computer-Aided Diagnosis of Laryngeal Carcinoma in pCLE Images. INSAI. 2022.

PROJECTS

- 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.

- 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.
- Grasping Novel Objects Using Unstructured Scenarios Project Officer, Fudan University, Video
  Developed a vision algorithm based on point cloud that generates