Huang Anni

Singapore +65 86199629 huanganni380@gmail.com Software Engineer II, Rockwell Automation

PROFESSIONAL SUMMARY

A **full stack** software engineer at **Rockwell Automation** with 2 years of experience and an **AI specialty**.

EDUCATION

Singapore Management University
Master, Artificial Intelligence **Aug 2021 – Aug 2022**
Algorithm, Python, Data Analysis, Applied Machine Learning (Grade A)
Huaqiao University
Bachelor, Computer Science **Sep 2017 – June 2021**
Java, Objective Oriented Programming (C++), Data Mining, Network Engineering (Grade A)

WORK EXPERIENCE

Rockwell Automation Software Engineer II **Apr 2024 – Present**

- Developed a new online IDE with a market of **9 billion business value**, successfully replacing a legacy system by integrating **open-source projects** Langium and Monaco Editor**.** Optimized cold start time by 10 times compared to Xtext.
- Developed a custom ChatBot ROK Bot based on the company's 1 million PLC code, user guide, and FAQ datasets to assist pre-sale and post-sale using **LangChain, FAISS vector database, React, FastAPI,** and **Docker**.
- Designed and developed **over 20 APIs** for backend services to support three user-aid features using **GraphQL, C# .NET** framework, and wrote unit tests with more than 95% coverage using **Xunit**.
- Utilized two open-source projects named to implement a compiler at the front-end, enabling three user-aid features like error highlighting, auto-completion, and tooltips using **Node.JS, Jasmine, TypeScript, and Angular**.
- **Parallelized** the build, linting, and unit testing processes in the **CI/CD pipeline** using **GitLab CICD** and significantly **reduced testing time by 50%**.

A*STAR-SMU Joint Lab Research Engineer **Sep 2022 – Apr 2024**

- Spearheaded the development and implementation of 1) telegram maintenance alert bot, 2) **Django** backend system which stores participants' data 3) real-time dashboard to visualize the change of daily activities for each participant utilizing **NGINX Routing Engine, MQTT Broker, ChartJs, and Crontab** services.
- Developed an analytical pipeline that performs numbers of **ETL** to derive over **8k/day** daily **activity logs** from **multimodal data sources** using **Apache Kafka, Apache Spark Streaming,** and **Grafana**.

IKAS Industry Machine Learning Engineer Intern **Jan 2021 – Jul 2021**

- Increased **F1-score** for predictive maintenance **by 3%** using **LightGBM** across a 15-minute time window by identifying essential features for the five most critical errors and finetuning ten machine learning models on a 5-year production dataset.

SKILLS

Languages: Python, C#, Typescript, Bash, SQL, HTML, CSS
Technologies: AWS, PyTorch, LangChain, Kafka, Linux, Node.JS, Django, .NET, Jasmine, XUnit, GraphQL

PROJECTS

Session-based recommendation for Amazon baby products https://github.com/WideSu/serenRec
Proposed a problem statement for the middle session-based recommendation system for retailer stores using YOOCHOOSE and Ta Feng datasets with multi-category action and used **PyTorch** to implement the models in RecSys 2021 including the traditional algorithms (baseline) such as S-POP, S-KNN, S-BPR as well as the SOTA: STAMP, Gru4Rec+. Evaluated the models by their accuracy, coverage, and novelty. Used attention scores in STAMP to depict the importance of historical interactions.

Stock Recommendation via Supervised Machine Learning models https://github.com/WideSu/Stock-recommandation-via-machine-learning-algorithms
Used Tushare financial data API and supervised machine learning models such as **Logistic Regression, Random Forest, and Support Vector Machine** to predict the stock's 60-day return rate. Our model would recommend holding the position if a specific stock outperformed the average return rate.

CERTIFICATE

- AWS Cloud Practitioner, Machine Learning Engineering for Production (MLOps) Specialization, Deep Learning Specialization