Youwei Huang

Home Page: www.devil.ren LLM Avatar: chat.devil.ren

Date of Birth: April 23, 1995

Place of Birth: Suzhou, Jiangsu, China

Professional Experience: 7 years with over 10 patents, 6 papers, and numerous projects **Business Address:** D1, 88 Jinji Lake Avenue, Suzhou Industrial Park, Suzhou, Jiangsu, China

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Academic History

Macau University of Science and Technology

Jan 2022 – Jan 2023 (Withdrawn)

Taipa, Macao SAR

Ph.D. Candidate

Research Focus: Software Engineering, Blockchain, Deep Learning

Monmouth University

Sep 2019 – Aug 2020

West Long Branch, NJ, USA

Master of Science in Software Engineering (ABET Accredited Program)

Research Focus: Software Engineering, Web Development, Blockchain

Changshu Institute of Technology

Sep 2013 – Jun 2018

Suzhou, Jiangsu, China

Bachelor of Engineering in Software Engineering

Included a one-year gap for entrepreneurship

Full-Time Experience

Institute of Intelligent Computing Technology, Suzhou, CAS (IICT)May 2020 – Present

Local branch of Institute of Computing Technology, Chinese Academy of Sciences

Suzhou Zhongke Lelian Information Technology Co., Ltd (Lelian)

Jan 2022 – Oct 2022

Subsidiary company established by IICT

Suzhou, Jiangsu, China

Title: Research Engineer & Team Lead at IICT; Project Manager at Lelian Co.

Conduct AI and Blockchain research, managing projects and teams at IICT. Led the incubation of Lelian Co., transforming the institute's innovative technologies into commercial products.

Shanghai LeMiao Network Technology Company

Jun 2018 – Aug 2019

Shanghai, China

Title: Software Engineer

Developed web applications and games; implemented DevOps practices

For more about my work, please visit: www.devil.ren or ask my LLM: chat.devil.ren

Representative Projects

AI for SE Research - Web3 Software Engineering

Jan 2022 – Now

Macau University of Science and Technology Supervisor: <u>Associate Professor Tao Zhang</u>

This is a cross-disciplinary research project at the intersection of Software Engineering, AI, and Blockchain. Our research focuses on Web3 Software Engineering (Web3SE) with the aim of enhancing existing software engineering models, methods, and tools to better support the development of Web3 applications. We have introduced SmartIntentNN, a deep learning model designed to detect unsafe development intents in smart contracts. More details and resources are available on our GitHub, and the related paper "Deep Smart Contract Intent Detection" can be found on arXiv. Another achievement is SmartBERT, a pre-trained programming language model based on BERT/RoBERTa, which captures smart contract representations and is accessible on HuggingFace. Further research on Web3SE, e.g., developing a Smart Contract LLM, is underway.

Blockchain Project - Application of Blockchain in Medical Health

May 2021 - Oct 2023

Institute of Intelligent Computing Technology, Suzhou, CAS

Supervisor: Professor Xiaofang Zhao

We developed **LeChain**, a consortium blockchain designed for healthcare applications, creating a trustable network among hospitals, patients, insurance companies, and health committees. LeChain leverages blockchain's immutable and traceable features to enable secure and reliable proof of medical data exchange. In this project, my research focused on cross-chain solutions, smart contracts, and privacy computing, publishing five invention patents and one journal paper. I also authored several technical white papers. This project won the "2022 Jiangsu Province Blockchain Industry **Development Pilot Demonstration Project**" award and incubated a blockchain technology company: Suzhou Zhongke Lelian Information Technology Co., Ltd.

BigData Project - Precise Epidemic Prevention and Control

May 2020 – May 2021

Institute of Intelligent Computing Technology, Suzhou, CAS

Supervisor: Professor Peiheng Zhang

This is a project about utilizing big data in anti-epidemic engineering. I led our team in researching two key technologies. First, we used **GeoHash** to dynamically divide regions and quantify the health and safety metrics of both divided areas and individuals. Second, we utilized **generic wireless bases**, such as Bluetooth and WiFi, to build anonymous contact networks for tracing and analyzing virus transmission paths. Project success includes: 1. Supporting government CDC efforts during the COVID-19 pandemic; 2. Publishing the paper **"Precise Epidemic Control based on GeoHash"** at DSA2022; 3. Secured 4 invention patents, with 3 granted; 4. Being selected for the **"2021 Youth Talent Support Project of the Suzhou Association for Science and Technology"**.