Tony Donghong Du

Software Engineer / Software Developer Reading, Berkshire, United Kingdom

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Diligent and flexible full-stack software developer with solid **mathematical knowledge** and **machine learning** experience. Eager to work as a software engineer and open to Data Analyst. Enthusiastic about technology, coding, and continually expanding my knowledge. (High Potential Visa.)

PUBLICATIONS

Improving Fine-grained Entity Typing with Entity Linking

Hongliang Dai, Donghong Du, Xin Li, Yangqiu Song. EMNLP, 2019.

- Utilize entity linking to help with the fine-grained entity type classification process.
- Propose a deep neural model that makes predictions based on both the context and the information obtained from entity-linking results.
- Achieve more than 5% absolute strict accuracy improvement over the state of the art (up to 89.6 F1 scores).

Professional Experience

Software Engineer Jun 2022 – Jun 2023

Premium Dental Lab HK

Hong Kong

- Developed and maintained a dental ordering platform(including user management, patient information storage, product ordering, online STL visualization, chatroom system, and billing system) with **expressJS** and **MySQL** database.
- Restructured and migrated the data from **Windows Server** to the **Linux server** and deployed the new system. Transfer .bak files to .sql files.
- Developed and maintained promotion websites for dental products with React

Software Engineer Nov 2021 – Jun 2022

FlashGreen Hong Kong

- Led as a full-stack developer and tech lead in an award-winning university startup team.
- Constructed an e-commerce site using CSS, jquery, bootstrap, javascript (frontend), PHP(backend), and MySQL(database). Deployed on a Linux server via cPanel with git for version control.
- Enhanced admin interface for the stock management platform in AngularJS and multiple API integrations.
- Won the Silver Medal in the International Exhibition of Inventions Geneva 2022 and The HKSTP Technopreneur Silver Award in the YDC Dare to Change Pitching Competition. (press release)

Research Assistant Sep 2019 - Jun 2021

Ultra-fast Over-the-Air-Computation for Edge Machine Learning in Mobile Internet

HKUST

- Proposed an effective waveform superposition solution with prototype validation for the over-the-air federated learning by utilizing the N-point orthogonal frequency-division multiplexing(OFDM) transmission.
- Visualized and demonstrated the fast speed and reliability for federated learning applications in IoT networks by alleviating the aggregation burden with over-the-air solutions.

Software Developer Internship

Jul 2017 - Aug 2017

Shen Zhen Idearforauto Technology Limited

Shen Zhen China

- Design and implement a face recognition system with MFC and OpenCV in Windows.
- Design and implement embedded systems in embroidery machines that can generate desired patterns automatically.

EDUCATION

Hong Kong University of Science and Technology(First Class Honor)

Sep 2015 - Jun 2019

BEng in Electronic Engineering (Computer Engineering), Bachelor of Engineering

BSc in Mathematics (Applied Mathematics), Bachelor of Science

- Minor in Information Technology,
- Overall CGA: **3.89**/4.30 (Top 2%)
- 3 years Awarded **Dean's list**

SKILLS

ADVANCED COURSES

Java • C++ • HTML• CSS • PHP • JavaScript • Python • SQL • NoSQL • Git • Node.js • RESTful API • Firebase • React • TypeScript • Linux Beginner: AWS • GCP • Windows Server • DevOps • Agile Development

Computer Graphics | Digital Image Processing | Machine Learning | Optimization for Machine Learning | Convex Optimization | Advanced Probability Theory | Partial Differential Equations | Linear-System Theory | Data Analytic Tools | Robotic Manipulation and Mobility | Computer Age Statistical Inference with Applications