Software Developer / Software Engineer

TING-CHUN CHEN

2-YEAR PSW (GRADUATE) VISA, NO SPONSOR REQUIRED, IMMEDIATELY AVAILABLE

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Nottingham, NG9 2SS

Skills

- **Python** (Pandas, NumPy, SciPy, sklearn, PySpark, Beautiful Soup, Requests, NLTK, gensim)
- **R** (R Markdown, ggplot2, dplyr, glmnet), MATLAB
- MySQL, HTML, CSS, JS, C++, Linux

Projects

NATURE LANGUAGE PROCESSING FOR FINTECH LITERATURE – Personal Project – Nottingham, UK July-Sep 2023

- Construct a fintech-related scientific articles database and extract plain texts from PDFs with **Python**
- Perform and compare several word embedding methods to fintech literature with **Python** NLTK toolkit
- Prototype for a citation sentence – fintech article matching system

IMBALANCING DATA PREPROCESSING IN BIGDATA APPROACHES – Group Project – Nottingham, UK April 2023

- Utilized **PySpark** and **DataBricks** to fix incorrect formatting, remove incomplete data and create secondary features
- Implemented nearest neighbor based algorithms (**SMOTE** and **ENN**) to balance data quantities in a **PySpark** approach
- Evaluated the preprocess with prediction accuracy metrics of several benchmark classification models

TRAFFIC INCIDENCE MANAGEMENT SYSTEM – Personal Project – Nottingham, UK Dec 2022

- Created a **web UI** to register, edit and query for traffic incidence, create officer accounts and manage audit trails
- Utilized **PHP** to access to **MySQL** database to add, edit and query traffic incidence records
- Implemented audit trail, user account management and login control and front-end design by **HTML, CSS, JS**

UNO GAME IMPLEMENTATION IN PYGAME – Group Project – Nottingham, UK Dec 2022

- Created a UNO game with **Pygame** in an **object oriented** approach
- Implemented complete rules of UNO, multi-player mode and 3 difficulty levels of AI player

MEDICAL-AI ETL, MODELING AND PREDICTION – Collaboration project – Taiwan Jul 2019 – Jun 2022

- Performed data preprocessing with **Excel** and **Python** and extracted features from medical images with **MATLAB**
- Evaluated models and analyzed the performance in prediction accuracies, model complexity and time-consuming
- Collaborated with Taipei Veterans General Hospital and Changhua Christian Hospital by meeting twice a month

Work Experience

DATA ENGINEERING RESEARCH ASSOCIATE – Intelligent Computational Lab, NCTU – Taiwan 2019-2022

- Built **automatic data processing** and report generation scripts which reduced manual processing time by 90%
- Constructed **prediction model** for medical prognosis with numerical or image data and communicated with leading hospitals
- Prepared materials and **trained the newcomers** with machine learning, optimization algorithms and data processing knowledge
- Practically applied the Liver Cancer Treatment Decision Support System to the gastrointestinal surgery clinic in VGH Taipei

Publication

Lee, I., Huang, J. Y., **Chen, T. C.,** Yen, C. H., Chiu, N. C., Hwang, H. E., ... & Huang, Y. H. (2021). **Evolutionary learning-derived clinical-radiomic models for predicting early recurrence of hepatocellular carcinoma after resection.** Liver Cancer, 10(6), 572-582.

Education

MASTER OF SCIENCE IN DATA SCIENCE – University of Nottingham –Nottingham, UK September 2023
Majors: Data Analysis, Natural Language Processing and Big Data Processing

MASTER OF SCIENCE IN BIOINFORMATICS – National Yang Ming Chiao Tung University – Taiwan November 2021
Majors: Machine Learning, Model Optimization and Data Mining