

Shih-Chieh Dai

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EDUCATION

B.S in Management Information Systems

Sep. 2016 – Jun. 2020

National Chengchi University (NCCU)

Taipei, Taiwan

GPA: (CS-related) 3.7/4.3

RESEARCH EXPERIENCE

Research Assistant

Jul. 2017 – Present

Natural Language Processing and Sentiment Analysis Lab, Academia Sinica

Taipei, Taiwan

Advisor: Dr. Lun-Wei Ku

Fake News Intervention

- Proposed on reinforcement learning based algorithm to mitigate the influence of fake news (Publications [1][2])
- Developed a web platform and conducted a comprehensive human-subject experiment to examine the effectiveness of our proposed algorithm

NLP Applications

- NLP for Supply Chain : Developed an algorithm to predict the upstream or downstream relation of any two given companies and achieve accuracy rate of 77.2% (Publication[4])
- NLP for Education : Applied a BERT-based model and developed a platform for English teachers to examine the quality of the test paper for ESL students with 86.3% accuracy (Publication[3])
- Auto Speech Recognition : Developed a Chinese-Language ASR tool to convert the speech to text

Undergraduate Research

Jul. 2018 – Jan. 2020

User Oriented Computing Lab, National Chengchi University (NCCU)

Taipei, Taiwan

Advisor: Prof. Yi-Ling Lin

- Developed a recommender system for e-commerce and packaged as RESTful API for the customer (Award [a])
- Developed an iOS app to demonstrate the usage of the API

PUBLICATIONS

- [1] **Shih-Chieh Dai***, Kuan-Chieh Lo*, Chang-You Tai, Aiping Xiong, Jing Jiang, Lun-Wei Ku, “A Fake News Intervention Algorithm That Verified Fake News By Recommending Verified News Article”, Submitting to ICWSM 2021
- [2] **Shih-Chieh Dai***, Kuan-Chieh Lo*, Aiping Xiong, Jing Jiang, Lun-Wei Ku, “All the Wiser: Fake News Intervention Using User Reading Preferences”, WSDM 2021 Demonstration Track
- [3] **Shih-Chieh Dai***, Ting-Lun Hsu*, Lun-Wei Ku, “Exam Keeper: Detecting Questions with Easy-to-Find Answers”, WWW 2019 Demonstration Track
- [4] Yi-Pei Chen*, Ting-Lun Hsu*, Wen-Kai Chung*, **Shih-Chieh Dai***, Lun-Wei Ku, “Upstream, Downstream or Competitor? Detecting Company Relations for Commercial Activities”, HCII 2019 Invited Paper

WORK EXPERIENCE

Lab Infrastructure Manager/System Administrator

Jan. 2019 – Present

Natural Language Processing and Sentiment Analysis Lab, Academia Sinica

Taipei, Taiwan

- Manage 11 GPU servers with 22 GPUs in the lab and maintain web server, file server (NAS) and database
- Implemented kubernetes (K8S) and trained the lab members to write the Dockerfile
- Successfully use pytorch and tensorflow on AMD GPU which lacks CUDA support

Software Engineer

Feb. 2020 – Jun. 2020

Fintech Research Center, National Chengchi University (NCCU)

Taipei, Taiwan

- Developed a conformance tool using Flask, Python, Swagger and Docker for third party providers to test interfaces and data endpoints against the Taiwan Open Banking API standard

Web Developer

Oct. 2019 – Nov. 2019

Informaship Ltd.

Taipei, Taiwan

- Developed website using HTML, JavaScript, CSS for Taiwan International Fisheries & Seafood Show (TIFSS)

TEACHING EXPERIENCE

Teaching Assistant — Course : Programming 101

Feb. 2019 – Jun. 2019

Department of Computer Science, National Chengchi University

Taipei, Taiwan

- Taught Python programming and guided the students to complete their capstone project

PROJECTS

Janus | Python, Flask, Elastic Search, D3.js, MongoDB, Docker

June 2020 – Present

- Developed a full-stack web application to visualize the stance of news articles

All the Wiser | Python, Flask, D3.js, MongoDB, Docker

Mar. 2020 – Present

- Developed a full-stack web application that adopt the fake news intervention algorithm to mitigate the influence of fake news and published to the demonstration track in WSDM 2021 (Publication[2])
- A questionnaire indicated that 84% of the users agree that the platform is effective in mitigating fake news

MindReader | Python, Scikit-learn, SQL server, MongoDB, Flask

Jul. 2018 – Jan. 2020

- Developed a RESTful API and provided a GUI platform for the implementer to modify the parameters of the recommender system (Award [a])

Exam Keeper | Python, BERT, MySQL, Chart.js, Mustard UI

Sep. 2018 – May 2019

- Developed a web application and adopted a BERT model to evaluate the quality of English test papers for ESL students (Grant [b] Publication [3])

CHACHA | Swift, Xcode, SQL server

Sep. 2017 – May 2018

- Developed an iOS app to search nearby beverage shops for a desired drink(Awards [d])

AWARDS AND GRANTS

[a] Graduation Project Competition | Second Place

2019

- MindReader-A Micro-moment Recommendation Mechanism API—(Advisor: Prof. Yi-Ling Lin)

[b] Travel Grant | \$3,000 (from Academia Sinica)

2019

- Attending The Web Conference (WWW), San Francisco, CA

[c] Travel Grant | \$3,000 (from Academia Sinica)

2019

- Attending International Conference On Human-Computer Interaction (HCI), Orlando, FL

[d] Creative Software Applications Contest | Excellent Work, Honorable Mention

2018

- CHACHA: An App can recommend a drink for you—(Advisor: Prof. Fang Yu)

PRESENTATIONS

Oral: HCI 2019 (Publication [4]), Orlando, FL

Poster: WWW 2019 (Publication [3]), San Francisco, CA

CS RELEVANT COURSES

Undergraduate Level: Introduction to Computer Science, Programming Language, System Analysis and Design, Data Structure, Database Management Systems, Finance and Accounting Information System, Algorithms, Business Data Communication, Operating System, Computer Architecture and Organization, Information System Project

Graduate Level: Web Search and Mining, Advanced Topics in Software Design, Natural Language Processing

SERVICES

Conference Reviewer: EACL 2021, NLPCC 2021, IAAI 2020

SKILLS

Programming Languages: Java, Python, C/C++, JavaScript, Swift, Assembly, PHP

Frameworks: Flask, Node.js, Semantic-UI, Bootstrap, Swagger

Packages: PyTorch, Keras, Scikit-learn, NLTK, D3.js, GenSim, Tensorflow

Database: MongoDB, Postgres, SQL server, SQLite

Others: Azure, AWS, Kubernetes, Git, Docker, Xcode, Elastic Search, Solar, Nginx, HTML/CSS, Vim, Eclipse, L^AT_EX

LANGUAGES

Languages: Chinese (Native), English (professional working proficiency), Japanese (JLPT N3)