Jing Wei

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Summary

Innovative researcher with 5 years of research experience across multiple countries and hands-on industry experience. Adept in AI Chatbots, Data Analysis, Model Development, and Machine Learning. A collaborative individual with strong communication and teamwork skills, demonstrated by working with cross-functional teams.

Key Skills

- Coding Languages: **Python**, R, JavaScript, CSS/HTML
- Tools & Packages: Scikit-learn, **Pandas**, Matplotlib, Google Cloud Platform (GCP), Tensorflow, Tableau
- Machine Learning (ML): Supervised/Unsupervised models, Large Language Models (GPT-3), NLU, ChatGPT
- Statistical Analysis: A/B Testing, Hypothesis Testing, Experimentation
- Qualitative Research Methods: Human-centered Designs, Usability Testing, Surveys, Interviews, Iterative Prototyping

Relevant Experience

Industry Research Intern - Developer **May 2022 – July 2022**

Naver AI Lab, South Korea

Tech: React, Node.js, CSS, Python, R

Leveraging Large Language Models to Prompt Intelligent Conversational Agents

- Assisted in the development of a web interface of chatbots that enable users to engage in conversations.
- Utilized Large Language Models (GPT-3) to build AI chatbots to provide data collection tasks.

Doctoral Researcher **Nov 2019 – Present**

The University of Melbourne, Melbourne, Australia

Tech: Google Cloud Platform (GCP), Firebase, Python, R, Node.js, Raspberry Pi, Dialogflow, Scikit-Learn, 3D Modeling

Investigating Survey Methodology with Smart Speakers

- Successfully developed and evaluated a voice survey application for smart speakers.
- Conducted an online study to gather valuable user feedback on voice surveys.

Developing Proactive Smart Speakers

- Built an innovative smart speaker prototype using Raspberry Pi and sensors with IoT concepts.
- Conducted an in-the-wild study and improved the prediction algorithm by 31.9% using XGBoost.

Research Assistant Projects

Developing Q&A Chatbots for Information Retrieval Tasks

Tech: Rasa NLP Framework, Python, SQLite, Jupyter Notebook

- Designed and developed a web interface for a chatbot for information retrieval tasks.
- Managed and maintained the project documentation.

Monitoring Sleep and Circadian Rhythms

Tech: 3D Modeling, Python, Matlab, Scikit-Learn

- Designed an innovative wearable sleep-monitoring device with sensors.
- Conducted successful user testing with 28 participants and developed an advanced sleep prediction algorithm.
- Collaborated with stakeholders to improve sleep monitoring for vulnerable populations.

Teaching Assistant (contract) **Aug 2020 – Present**

The University of Melbourne, Melbourne, Australia

Key Responsibilities

- Supervised and assisted students with their projects and studies through tutorials.
- Helped students develop a great understanding of subjects they took and encouraged creative thinking.

Subject – Fundamentals of Interaction Design:

- Taught wireframes, prototypes, and personas and provided feedback for student projects.

Subject – Mobile Computing:

- Assisted students with the development of their final Android programming projects involving sensors and IoT.

Education

PhD in Computing and Information Systems **Nov 2019 – Present**

The University of Melbourne, Melbourne, Australia

Awards: Melbourne Research Scholarship

Thesis: Developing and Improving the Usability of Proactive Smart Speakers

Master of Applied Science in Systems Design Engineering **Sep 2017 – Aug 2019**

University of Waterloo, Canada

Awards: University of Waterloo Graduate Scholarship, Waterloo Special Graduate Entrance Award

Thesis: Monitoring Circadian Rhythm and Sleep Patterns Using Wrist-worn Temperature and 3-axis Accelerometer Sensors

Bachelor of Engineering **Sep 2013 – Jun 2017**

Southern University of Science and Technology, China

Selected Publications

- **Jing Wei**, Weiwei Jiang, Chaofan Wang, Difeng Yu, Jorge Goncalves, Tilman Dingler, Vassilis Kostakos. 2022. Understanding How to Administer Voice Surveys through Smart Speakers, Proc. ACM Hum.-Comput. Interact. 6, CSCW2, Article 548 (November 2022) **[Ranking: A]**
- **Jing Wei**, Benjamin Tag, Johanne R Trippas, Tilman Dingler, Vassilis Kostakos. 2022. What Could Possibly Go Wrong When Interacting with Proactive Smart Speakers? A Case Study Using an ESM Application, Proc. Conference on Human Factors in Computing Systems (CHI). **[Ranking: A*]** [Acceptance rate: 24.7%]
- **Jing Wei**, Tilman Dingler, Vassilis Kostakos. 2021. Understanding User Perceptions of Proactive Smart Speakers, Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT), vol. 5, no. 3, article 185, 28 pages. **[Ranking: A*]**
- **Wei, J.,** & Boger, J. (2021). Sleep Detection for Younger Adults, Healthy Older Adults, and Older Adults Living with Dementia Using Wrist Temperature and Actigraphy: Prototype Testing and Case Study Analysis. JMIR mHealth and uHealth, 9(6), e26462. **[Impact Factor: 4.95]**

Referee

Available Upon Request