Fangzhou (Fang) Li

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EDUCATION

Ph.D. in Computer Science **2020-Now**
University of California, Davis
Advisor: Ilias Tagkopoulos
Research Areas: Machine Learning, Natural Language Processing, and Food

B.S. in Computer Science and Applied Mathematics **2015-2019**
University of California, Davis

RESEARCH EXPERIENCE

Graduate Student Researcher **2020-Now**
AI Institute of Next Generation Food Systems, University of California, Davis
- Building a semi-automated framework for constructing a food knowledge graph using deep learning techniques.
- Analyzing nutrient concentration in human serums to understand protein digestibility using machine learning techniques.
- Developing a machine learning predictor for adolescent depression using demographic, clinical, and survey data.

Research Intern **2019-2020**
Genome Center, University of California, Davis
- Performed sensitivity analysis for an animal cell-based meat production cost model.
- Constructed data pipelines for multiple projects in the lab.

Undergraduate Student Researcher **2018-2019**
Genome Center, University of California, Davis
- Parallelized several time-consuming pipelines in the lab to utilize HPC efficiently.

PUBLICATIONS

Li, F.*, Youn, J.*, & Tagkopoulos, I. (2023). Semi-automated construction of food composition knowledge base. *The 2nd AAAI Workshop on AI for Agriculture and Food Systems*. (* equal contribution)

Li, F.*, Yoo, A.*, Youn, J.*, Guyer, A. E., Hostinar, C. E., & Tagkopoulos, I. (2022). Prediction of adolescent depression from demographic, clinical, and survey data from ALSPAC Using Machine Learning. *Under Review*. (* equal contribution)

Risner, D., **Li, F.**, Fell, J. S., Pace, S. A., Siegel, J. B., Tagkopoulos, I., & Spang, E. S. (2020). Preliminary techno-economic assessment of animal cell-based meat. *Foods*, 10(1), 3.

ORAL PRESENTATIONS

Li, F. (2023). Semi-automated construction of food composition knowledge base. Lightning talk presented at *the 2nd AAAI Workshop on AI for Agriculture and Food Systems*.

BOOK CHAPTERS

Li, F. (2021). Detecting Concepts. In C. Molnar (Ed.), *Interpretable Machine Learning - A Guide for Making Black Box Models Explainable* (ch. 10.3.). https://christophm.github.io/interpretable-ml-book/detecting-concepts.html

TEACHING EXPERIENCE

Teaching Assistant **2021-2022**

Department of Computer Science, University of California, Davis

- Led discussions and graded assignments for ECS170 - Introduction to Artificial Intelligence courses in Spring 2021 (>100 students) and Spring 2022 (>100 students).
- Gave an introductory lecture for deep learning for ECS170 in Spring 2022.

HONORS AND AWARDS

Travel Support Award **($1,000)**, 1st IEEE Conference of Secure and Trustworthy ML, Raleigh, NC. **2022**

Microsoft Research Ph.D. Fellowship Nominee **(4 nominees per department)**, Microsoft, Redmond, WA. **2022**

Graduate Student Fellowship **($120,000)**, University of California, Davis, Davis, CA. **2020-2022**

Dean's Honor List, University of California, Davis, Davis, CA. **2016, 2018**

Luther & Maria Davis Scholarship **($2,000)**, University of California, Davis, Davis, CA. **2016-2017**

PROFESSIONAL SERVICES

- Reviewer of the AAAI AIAFS workshop.
- Technical reviewer of AIFS Education Module.

SKILLS

- **Programming Languages**: Python, C/C++, Java, JavaScript, HTML/CSS, MATLAB
- **Operation Systems**: Linux, macOS, Windows
- **Machine Learning**: PyTorch, Tensorflow, Scikit-learn
- **Productivity**: Microsoft Office, LibreOffice, SLURM
- **Linguistic Languages**: English, Mandarin (Native), Japanese (Native)
- **Others**: Mixed martial arts (boxing, Brazilian jiu-jitsu, etc.)