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 food digestibility using machine learning techniques.
- Developing a machine learning predictor for adolescent depression using demographic, clinical, and survey data.
- Mentoring 1 undergraduate and 1 research intern.

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 37th AAAI Conference on Artificial Intelligence-AI for Agriculture and Food Systems Workshop*, accepted as Lightning Talk.

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*.

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.

CONFERENCE PRESENTATIONS

Youn, J., **Li, F.**, & Tagkopoulos I. (2022). FoodAtlas: Navigating through food knowledge graph with deep learning. Poster presented at AI Institute of Next Generation Food Systems Symposium, Davis, CA.

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 PhD 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 AAAI workshop(s).
- 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.)