Yuyi Yang

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EDUCATION

Washington University in St. Louis | MO, USA   *Aug 2023 – Present*
- **Ph.D. of Computational and Data Science** in Public Health
- **Scholarship/Honors:** Dean's Select PhD Fellowship; McDonnell International Scholars Academy

Washington University in St. Louis | MO, USA   *Aug 2020 – May 2023*
- **Master of Public Health** in Epidemiology/Biostatistics
- **Scholarship:** Brown School Scholarship

Fudan University | Shanghai, China   *Sep 2015 - Jun 2020*
- **Bachelor of Medicine** in Basic Medical Sciences
- **Scholarship/Honors:** Undergraduate Academic Excellence Scholarship (2016, 2017); Fudan University Medical School Scholarship sponsored by Eisai (2016); UBC full scholarship visiting scholar sponsored by Shanghai government (SXF820019) and Fudan University Medical School (IBF101101) (2018).

PUBLICATIONS

1. Li H, Huang J, Ji M, **Yang Y**, An R. Use of retrieval-augmented large language model for COVID-19 fact-checking. J Med Internet Res. Forthcoming. doi:10.2196/66098. https://preprints.jmir.org/preprint/66098.
2. **Yang Y**, Wang C, Xiang X, & An R. AI Applications to Reduce Loneliness Among Older Adults: A Systematic Review of Effectiveness and Technologies. Healthcare. 2025. 13(5), 446. https://doi.org/10.3390/healthcare13050446
3. **Yang Y**, Alba C, Wang C, Wang X, Anderson J, An R. GPT Models Can Perform Thematic Analysis in Public Health Studies, Akin to Qualitative Researchers. Journal of Social Computing, 2024. 5(4), 293-312. https://ieeexplore.ieee.org/abstract/document/10832545
4. Si Y, **Yang Y**, Wang X, Zu J, Chen X, Fan X, An R, Gong S. Quality and Accountability of ChatGPT in Health Care in Low-and Middle-Income Countries: Simulated Patient Study. Journal of Medical Internet Research. 2024. 26, e56121. https://doi.org/10.2196/56121
5. An R, Perez-Cruet J, Wang X, **Yang Y*** (corresponding author). Build Deep Neural Network Models to Detect Common Edible Nuts from Photos and Estimate Nutrient Portfolio. Nutrients. 2024. 16(9), 1294. https://doi.org/10.3390/nu16091294
6. **Yang Y**, Lin N, Batcheller Q, Zhou Q, Anderson J, An R. Sentiment Analysis of Tweets on Menu Labeling Regulations in the US. Nutrients. 2023. 15(19), 4269. https://doi.org/10.3390/nu15194269
7. An R, Shen J, Wang J, **Yang Y**. A scoping review of methodologies for applying artificial intelligence to physical activity interventions. Journal of Sport and Health Science. 2023. https://doi.org/10.1016/j.jshs.2023.09.010
8. An R, **Yang Y*** (corresponding author), Yang F, Wang S. Use prompt to differentiate text generated by ChatGPT and humans. Machine Learning with Applications. 2023. https://doi.org/10.1016/j.mlwa.2023.100497
9. An R, Batcheller Q, Wang J, & **Yang Y**. Build neural network models to identify and correct news headlines exaggerating obesity-related scientific findings. Journal of Data and Information Science. 2023. https://doi.org/10.2478/jdis-2023-0014
10. An R, **Yang Y** (co-first author), Batcheller Q, & Zhou Q. Sentiment Analysis of Tweets on Soda Taxes. Journal of public health management and practice: JPHMP. 2023. 29(5), 633–639. https://doi.org/10.1097/PHH.0000000000001721
11. **Yang Y**, Liu X. [Research process of Gasdermin E in inducing cell pyroptosis]. Chinese Journal of Pathology. 2021. 50(4), 421–424. https://doi.org/10.3760/cma.j.cn112151-20200724-0058

RESEARCH EXPERIENCES

Computational and Data Sciences | Washington University in St. Louis   *Aug 2023 – Present*
PhD Student, McKelvey School of Engineering
- Application of AI in the field of public health. (Ruopeng An's Lab)
- Large Language Models (Jiaxin Huang's Lab)
- Application of AI in the field of psychology. (Renee Thompson's Lab)

Applied Machine and Deep Learning Using Health Data | Washington University in St. Louis   *Mar 2022 – Aug 2023*

Research Assistant, Brown School
- Application of AI in the field of public health.
- Systematic review and meta-analysis.

Clonal Hematopoiesis and Risk of Incident Lung Cancer| Washington University in St. Louis   *Jun 2022 - Aug 2022*
Research Assistant, Division of Public Health Sciences, School of Medicine
- Prospectively examined the association between clonal hematopoiesis and subsequent risk of lung cancer. (Yin Cao's Lab)

The Role of GSDME in Breast Cancer Multidrug Resistance | Fudan University   *Oct 2017 - Jun 2020*
Undergraduate Project Investigator, Department of Pathology
- Induced chemotherapy drug resistant breast cancer cell lines MCF-7, 231 by doxorubicin, carboplatin, and 5-fluorouracil.
- Detected 1) the expression of GSDME gene in breast cancer cell lines and its drug resistant ones by q-PCR and Western Blot 2) the ratio of pyroptosis in them.
- Concluded that GSDME was highly expressed in breast cancer resistant cell lines and the ratio of pyroptosis was correspondingly higher.

The Role and Mechanism of RacGAP1 Regulated Mitochondrial Quality Control in Breast Cancer Invasion and Metastasis | Fudan University   *Jun 2017 - Jun 2018*
Research Assistant, Department of Pathology
- Conducted literature review, analyzed experimental results, and presented data at journal club and seminars.
- Gained hands-on experiences of culturing cells, packaging lentivirus, and conducting basic molecular biological experiments such as running Western Blot, PCR, and DNA agarose gel, extracting RNA, DNA and protein.

WORK EXPERIENCES

Washington University in St. Louis | MO, USA
Teaching Assistant/Mentored Teaching Experience (MTE)/Instructor
- S55/S90.MPH.5139 Applied Machine Learning Using Health Data (Instructor)   *2025 Spring*
- S55/S90.MPH.5601 Applied Deep Learning Using Health Data (Instructor)
  2024 Fall
- 2023 Artificial Intelligence Applications for Health Data Advanced Learning Certificate (MTE)   *2023 Fall*
- Applied Machine Learning Using Health Data (TA)   *2023 Spring*

DasCapital Overseas Limited | Shanghai, China   *Aug 2020 - Jan 2022*
Full-time Associate (Jun 2021 - Jan 2022), Full-time Analyst (Dec 2020 - Jun 2021), Intern (Aug 2020 - Dec 2020)
- Provided financial advisory services on private placement for disruptive medical enterprises in growing stages.
- Wrote more than 100 pitchbooks, 10 business plans, and 8 industry research reports. The cumulative deal size in 2021 exceeds $200 million. Track records:
  - Nutshell Therapeutics, AI+ allosteric drug, series A & A+
  - CommBio Therapeutics, bacterial vector gene therapy, Corporate Round & series Pre-A
  - Sciwind Biosciences, metabolic disease drug, series C
  - Holosensor Medical, IVD microfluidic systems, series pre-A+
  - Forqaly Medical, percutaneous ventricular assistant device, series B

Jingan District Central Hospital of Shanghai | Shanghai, China   *Sep 2018 - Jan 2019*
Undergraduate Intern
- Assisted doctors in the Obstetrics, Gynecology, Internal Medicine, Surgery and Pediatrics Departments for 4 to 6 weeks each.
- Provided medical support as the first assistant or second assistant in surgical operations.
- Collected and organized patients' information, communicated with patients and family members, and prepared for surgery, and wrote discharge summaries.

POSTER PRESENTATION

The Society for Research in Psychopathology 2024 Annual Meeting, Montreal, Canada   *Oct 2024*
- Predicting Momentary Affect and Emotion Differentiation with Passive Sensors: The Benefit of Incorporating Self-Reported Location Information into GPS Data.

2024 AI for Health Symposium, St. Louis, MO   *Oct 2024*
- GPT Models Can Perform Thematic Analysis in Public Health Studies, Akin to Qualitative Researchers

2024 Institute of Clinical and Translational Sciences (ICTS) Data Research Symposium, St. Louis, MO   *Sep 2024*

- Build Deep Neural Network Models to Detect Common Edible Nuts from Photos and Estimate Nutrient Portfolio

2024 Scientific Meeting by the American Academy of Health Behavior (AAHB), Savannah, GA *Apr 2024*
- Sentiment Analysis of Tweets on Menu Labeling Regulations in the US

29th WashU Annual Graduate Research Symposium, St. Louis, MO *Mar 2024*
- Use Prompt to Differentiate Text Generated by ChatGPT and Humans

2023 The Public Health at WashU Annual Conference, St. Louis, MO *Oct 2023*
- Sentiment Analysis of Tweets on Menu Labeling Regulations in the US

2023 Institute of Clinical and Translational Sciences (ICTS) Data Research Symposium, St. Louis, MO *Sep 2023*
- Sentiment Analysis of Tweets on Soda Taxes
- Build Neural Network Models to Identify and Correct News Headlines Exaggerating Obesity-related Scientific Findings

ACTIVITIES

Graduate Student Affairs Advisory Board *Sep 2023 - Present*
- Discussing matters affecting graduate and professional students at WashU monthly.

AI interest group *March 2023 – Dec 2024*
Co-organizer
- Organizing bi-weekly sharing sessions on AI applications and advances within the group.

Transdisciplinary Institute in Applied Data Sciences (TRIADS) Lightning Talk Competition *May 2024*
- Build Deep Neural Network Models to Predict Momentary Affect and Emotion Differentiation with Passive Sensors

Brown School Peer2Peer Program *August 2022 - May 2023*
Peer Mentor
- Was available to first year students for questions and support.
- Provided access to people and resources.
- Offered incoming students extra support as they navigate grad school during a pandemic.

SKILLS

Programming: Python; R; SAS; SPSS; Java; VB
Languages: Chinese (Native); English (Proficient); Japanese (Intermediate)
Other: Tableau; Microsoft Office; Photoshop; Wind