YEHU CHEN

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SUMMARY

Research assistant at WashU STL specializing in machine learning and quantitative methods. With vast experience and deep understanding in data analytics, causal inference, experimental design, predictive and forecasting models, natural language processing, software engineering and cross-functional team collaboration. Fluent in modern programming languages and visualization tools. Research work has led to publications in top-tier conferences/journals. **Actively looking for full-time opportunities between Fall 2024 and Summer 2025**.

EDUCATION

- **Ph.D Candidate in Computational & Data Science** 2019 - Present
  Washington University in St Louis, St Louis, MO. GPA: 3.9/4.0.
- **Bachelor of Science in Computer Science** 2017 - 2019
  University of Michigan, Ann Arbor, MI. Summa Cum Laude.

PROJECTS

- **Polling and Time: Dynamic Forecasting for US Senate Elections** **Political Analysis, 2023**
  Collaborate with *CNN* and design forecasting models for senatorial elections by collecting polling data from major polling companies using web-scraping techniques. Successfully forecast outcomes of 33/35 races in 2020 with lower MSE of predicted vote shares than other forecasters, including *The Economist* and *FiveThirtyEight*.
- **Multi-Task Gaussian Process for Time-Varying Treatment Effects in Panel Data** **AISTATS, 2023**
  Propose and implement a novel difference-in-difference method based on machine learning with more precise causal effect estimation and calibrated event predictions. Apply the method and topic modeling to analyze broadcast transcripts that deepens the understanding of supply-side roles by mainstream news media.
- **Personalized Psychological Assessment for Big-Five Personality** **Neurips, 2024**
  Design and execute pilot studies on personalized assessment by conducting experience sampling surveys and building novel measurement models under deep learning framework. Substantive findings manage to reconcile a long-lasting psychological debate and contribute to grant award from National Science Foundation of $500,000.
- **Small-Area Estimation Using Gaussian Process and Post-Stratification** *In progress*, **2024**
  Cooperate with National Geospatial-Intelligence Agency and build machine learning models for efficiently estimating small-area public opinion from large nationally representative surveys. Significantly reduce required sample sizes by over 25% and hence alleviating the operational and time-related demands associated with data collection.
- **Dynamic Item Response Theory for Latent Measurement** **Neurips, 2024**
  Develop new quantitative models and publish R packages of Bayesian item response theory that provides better justification and prediction of economic and legal behaviors. Analyze large data archives such as American Panel Survey and Supreme Court dispositions that yield meaningful insights to researchers and clients.

WORK EXPERIENCE

- **Software Engineer Intern, Foxit Software Inc, Fremont, CA** Summer 2018
  Engineered key features for enterprise solutions including automation and UI for advanced PDF integration.
- **Research Intern, Shanghai Fudan Microelectronics Group, Shanghai, China** Winter 2017
  Conducted research to support advancements in microelectronics engineering solutions.

TECHNICAL SKILLS

- **Programming** C/C++/C#, Python, R, Matlab, SQL, Java, JavaScript, HTML, Latex, Linux, Tableau
- **Machine Learning** Tensorflow, Pytorch, GPyTorch, AWS, Anaconda, Jupyter, Google Colab, Pyro, Stan
- **Data Science** Statistics and analysis, Database, Data visualization, Critical thinking, Communication