

## Openings Available at NingLab, OSU

The NingLab (<http://go.osu.edu/ninglab>) at the Biomedical Informatics (BMI) Department and Computer Science and Engineering (CSE) Department, The Ohio State University provides unique opportunities and environment for the development of cutting-edge AI/ML methodologies and the application of the methods in high-impact, real-life medical and health problems. The NingLab focuses on Artificial Intelligence (AI), particularly generative AI (genAI), for Science (**AI4Science**), with applications in drug discovery (e.g., drug design via 2D molecular graph generation and 3D molecule shape generation, peptide generation), healthcare and medicine (e.g., drug repurposing and early onset detection for Alzheimer's diseases, electronic health record retrieval, cancer drug selection), and Recommender Systems (e.g., sequential recommendation, recommendation based on LLMs).

The NingLab currently (as of May 1, 2024) has multiple openings for Ph.D. students, postdocs, and research staff. If interested, please contact Dr. Ning ([ning.104@osu.edu](mailto:ning.104@osu.edu)) with an updated CV and representative publications, if available. Applicants for Ph.D. positions please also enclose undergraduate transcripts.

Some quick facts about OSU: (1) [#43 in National Universities](#); (2) [#17 in Top Public Schools](#); and (3) [#27 in Computer Science](#)

Some quick facts about Columbus, OH (14th-most populous city in the U.S.)

### About the PI:

Dr. Ning is a Professor in the BMI Department and in the CSE Department at OSU. She also holds a courtesy appointment with the College of Pharmacy. She is the Division Chief of AI in Digital Health, Clinical Informatics, and Implementation Science at BMI, and an Associate Director of Biomedical Informatics at the Center for Clinical and Translational Science (CCTS) at OSU. She received her Ph.D. degree from the Computer Science & Engineering Department, University of Minnesota (UMN), Twin Cities, in 2012; and her M.S. degree in Computer Science, and M.S. degree in Statistics from the School of Statistics at UMN. She received her B.S. degree in Computer Science from the Chu Kechen Honors College, Zhejiang University, China. She was a researcher at the Autonomic Management Department, NEC Labs America in 2012-2014, and a tenure-track Assistant Professor at the Computer and Information Science Department (a Purdue Ph.D. program), Indiana University – Purdue University Indianapolis (IUPUI) in 2014-2018, before she joined OSU in 2018.

### CSE Ph.D. students

NingLab is seeking **4 Ph.D. students for research on AI4Science and AI4Health, starting as early as Summer 2024**, with full Graduate Research Assistantship support available for 5 years. The students will help develop novel AI technologies for (1) omics analysis and drug repurposing for Alzheimer's Disease (AD); (2) electronic health record analysis and mobile health for AD; (3) LLMs for Science; and (4) genAI for drug design.

Ideal candidates should be self-motivated and determined. They are expected to have a strong background in Computer Science and Engineering. Extensive programming experience and prior research experience are preferred. Knowledge and experience in Biology, Chemistry or Medicine are preferred but not required.

The Ph.D. students will be enrolled in the Computer Science and Engineering Department. (i.e., upon graduation, they will be granted CSE degrees). If the students are already enrolled in the OSU CSE programs, please feel free to schedule a meeting with Dr. Ning on campus.

### Postdocs

NingLab is seeking **2-3 postdocs, starting immediately until the positions are filled**. The postdoc candidates are expected to have a Ph.D. degree in Computer Science or related

disciplines (e.g., Electrical Engineering), are able to conduct research in AI/ML (e.g., doing research on deep learning or LLMs) and have strong communication skills and leadership. The postdoc candidates are also expected to be highly self-motivated and have a clear career goal set in mind. The postdocs will assist PI Ning on the methodology development in the current projects (e.g., drug repurposing for AD, predictive analysis for AD, genAI for drug design, LLMs for science). Compensation and benefits will be very competitive.

### **Research Staff**

The NingLab provides full-time research staff positions. The candidates should have at least MS degrees in Computer Science or related disciplines (e.g., Electrical Engineering), and have research experience in AI/ML. Please contact Dr. Ning ([ning.104@osu.edu](mailto:ning.104@osu.edu)) for more information.