Siyuan Jiang

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EDUCATION

Ph.D.	Department of Computer Science and Engineering, University of Notre Dame, 2018
M.E.	Computer Software and Theory, Software Engineering Institute, East China Normal University, 2012
B.E.	Software Engineering, School of Software Engineering, Tongji University, 2009

EMPLOYMENT

2023-Present	Associate Professor, Department of Computer Science, Eastern Michigan University, MI, USA
2018-2023	Assistant Professor, Department of Computer Science, Eastern Michigan University, MI, USA
2019 (May)	Visiting Scholar, School of Computer Science and Software Engineering, East China Normal University, Shanghai, China
2018	Postdoctoral Research Associate, Department of Computer Science and Engineering, University of Notre Dame, IN, USA

RESEARCH INTERESTS

Software Engineering, **Software Engineering Education**, Program Comprehension, **Large Language Modeling (GenAI)**, Software Maintenance, Information Retrieval, Deep Learning

GRANTS and AWARDS

2021	**NSF Collaborative Research: SHF: Small: Context-aware Models of Source Code Summarization, 2100050, 10/21-09/24, $50,009**
2019	Eastern Michigan University – Faculty Research Award, 100% teaching release and $2,500 funding
	Eastern Michigan University – Summer Research Award, $12,000
2018	Nvidia GPU Grant - Nvidia Quadro P6000

PUBLICATIONS ON MACHINE LEARNING IN COMPUTING EDUCATION

2027 Kaitlyn Tracy, **Siyuan Jiang**, and Ourania Spantidi, "What Do Students Want From a General Education AI Course? A Student-Informed Design", poster in Proc. of the 58th ACM Technical Symposium on Computer Science Education (SIGCSE TS 2027), accepted.

2026 Teal Amore, Nathan Berman, and **Siyuan Jiang**, "The Impact of Documentation on Test Engagement in Pull Requests in OSS", in Proc. of the ACM International Conference on the Foundations of Software Engineering (FSE'26), Montreal, Canada.

2026 Allan Brockenbrough, Yasrib Yasir Farook, Teal Amore and **Siyuan Jiang**, "Guiding Students in Using Generative AI for User Story Writing: An Experience Report", in Proc. of the 2nd ACM Virtual Global Computing Education Conference (SIGCSE Virtual).

2024 Anthony Varkey, **Siyuan Jiang**, and Weijing Huang, "CodeCSE: A Simple Multilingual Model for Code and Comment Sentence Embeddings", arXiv preprint arXiv:2407.06360.

2023 Aakash Bansal, **Siyuan Jiang**, Sakib Haque, and Collin McMillan, "Statement-based Memory for Neural Source Code Summarization", arXiv preprint arXiv:2307.11709.

2019 Alexander LeClair, **Siyuan Jiang**, and Collin McMillan, "A Neural Model for Generating Natural Language Summaries of Program Subroutines", in Proc. of the 41st ACM/IEEE International Conference on Software Engineering (ICSE'19), Montreal, Canada.

Yihao Huang, Jincao Feng, Hanyue Zheng, Jiayi Zhu, Shang Wang, **Siyuan Jiang**, Weikai Miao, Geguang Pu, "Prema: A Tool for Precise Requirements Editing, Modeling and Analysis", in Proc. of the 34th IEEE/ACM International Conference on Automated Software Engineering, Demonstrations Track (ASE'19), San Diego, California, USA.

2017 **Siyuan Jiang**, Ameer Armaly, and Collin McMillan, "Automatically Generating Commit Messages from Diffs Using Neural Machine Translation", in Proc. of the 32nd IEEE/ACM International Conference on Automated Software Engineering (ASE'17), Urbana-Champaign, Illinois, USA.

Rrezarta Krasniqi, **Siyuan Jiang**, and Collin McMillan, "TraceLab Components for Generating Extractive Summaries of User Stories", in Proc. of the 33rd IEEE International Conference on Software Maintenance and Evolution, Artifacts Track (ICSME'17), Shanghai, China.

Paul W. McBurney, **Siyuan Jiang**, Marouane Kessentini, Nicholas A. Kraft, Ameer Armaly, Mohamed Wiem Mkaouer, and Collin McMillan, "Towards Prioritizing Documentation Effort", in IEEE Transactions on Software Engineering (TSE), vol. 44, no. 9, pp. 897-913, 2018. Journal-First paper presentation at the 11th Joint Meeting of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering (ESEC/FSE'17), Paderborn, Germany.

Siyuan Jiang and Collin McMillan, “Towards Automatic Generation of Short Summaries of Commits”, in Proc. of the 25th International Conference on Program Comprehension, Early Research Achievement Track (ICPC’17), Buenos Aires, Argentina.

Siyuan Jiang, Ameer Armaly, Collin McMillan, Qiyu Zhi, and Ronald Metoyer, “Docio: Documenting API Input/Output Examples for C Libraries”, in Proc. of the 25th International Conference on Program Comprehension, Tool Demo Track (ICPC’17), Buenos Aires, Argentina.

Paige Rodeghero, **Siyuan Jiang**, Ameer Armaly, and Collin McMillan, “Detecting User Story Information in Developer-Client Conversations to Generate Extractive Summaries”, in Proc. of the 39th ACM/IEEE International Conference on Software Engineering (ICSE’17), Buenos Aires, Argentina.

2016 **Siyuan Jiang**, Collin McMillan, and Raul Santelices, “Do Programmers Do Change Impact Analysis in Debugging?”, in Empirical Software Engineering (EMSE), vol. 22, no. 2, April 2017, pp. 631-669. Journal-First paper presentation at the 33rd IEEE International Conference on Software Maintenance and Evolution (ICSME’17), Shanghai, China.

Haipeng Cai, Raul Santelices, and **Siyuan Jiang**, “Prioritizing Change-Impact Analysis via Semantic Program-Dependence Quantification”, in IEEE Transactions on Reliability, vol. 65, no. 3, pp. 1114 -1132.

PROFESSIONAL SERVICE

2026 Empirical Software Engineering, Transactions on Software Engineering and Methodology, IEEE Transactions on Software Engineering

2025 IEEE Transactions on Software Engineering, the ACM International Conference on the Foundations of Software Engineering, Journal of Software: Evolution and Process, Science of Computer Programming

2024 Empirical Software Engineering

2023 Empirical Software Engineering, the 23rd IEEE International Working Conference on Source Code Analysis and Manipulation

2022 Empirical Software Engineering, Neural Networks

2021 The 29th IEEE/ACM International Conference on Program Comprehension, INSOF, JSME, SANER

2020 Software: Practice and Experience; Journal of Systems and Software; Empirical Software Engineering

2019 IEEE Transactions on Software Engineering; Journal of Software Evolution and Process; Empirical Software Engineering; Journal of Systems and Software; SCAM'19; ICSME'19 (tool track); SEI'19 workshop

2018 IEEE Transactions on Software Engineering; IEEE Transactions on Services Computing; Empirical Software Engineering

2017 Information and Software Technology

2015 ICSME'15 (tool track); ICPC'15

TEACHING EXPERIENCE

Eastern Michigan University, Instructor

- COSC 686 Software Quality Assurance — Winter 2027
- COSC 481W Software Engineering Capstone / Senior Project — 2019-present
- COSC 381 Software Engineering Solutions — 2020–present
- COSC 311 Algorithms & Data Structures — Fall 2018, Winter 2019
- COSC 211 Programming Data Structures — Fall 2018
- COSC 111 Intro to Programming — Winter 2019, Fall 2020