

Gengyi Sun

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PUBLICATIONS

Full-Length Publications (10 pages or more) in International Conference Proceedings.....

FSE'24 Gengyi Sun, Sarra Habchi, Shane McIntosh. RavenBuild: Context, Relevance, and Dependency Aware Build Outcome Prediction. *In Proc. of the Int'l Sym. on the Foundations of Software Engineering (ACM)*, pp. 45:1–45:23, Jul. 2024.

ICSE'24 SEIP Gengyi Sun, Mehran Meidani, Sarra Habchi, Mathieu Nayrolles, Shane McIntosh. Code Impact Beyond Disciplinary Boundaries: Constructing a Multidisciplinary Dependency Graph and Analyzing Cross-Boundary Impact. *In Proc. of the Int'l Conf. on Software Engineering, Software Engineering in Practice track (ACM/IEEE)*, pp. 122–133, Apr. 2024.

Theses.....

MMath Gengyi Sun. Quantifying, Characterizing, and Leveraging Cross-Disciplinary Dependencies: Empirical Studies from a Video Game Development Setting. University of Waterloo, Canada. Dec. 2023.

Others.....

ICSE'25 DS Gengyi Sun. Intelligent Automation for Accelerating the Repair of Software Build Failures. *In Proc. of the Int'l Conf. on Software Engineering, Doctoral Symposium track (ACM/IEEE)*, Apr. 2025.

Ubisoft Gengyi Sun. Build Outcome Prediction - Saving Time and Resources. Ubisoft, La Forge, Canada. Apr. 2024.

This blog is published by the official [Ubisoft LinkedIn](#) account, which has more than one million followers.

INDUSTRIAL EXPERIENCES

Research and Development Intern (*Ubisoft, La Forge*) **Toronto** Sept. 2022 - Sept. 2024

Researched the Continuous Integration (CI) process in the context of video games.

Dependency Graph Analytics

Formulated empirical analyses to identify changes of higher risks based on the dependency graphs of the video game project.

Build Outcome Prediction

Proposed strategies to reduce CI costs and improve CI stability. Multiple teams at Ubisoft have invested in developing API services to enable internal feedback cycles for this project. *This work was also presented at [Game Developer Conference 2024](#), and attracted interests from outside of the company.*

COMMITTEE SERVICES

MSR'25 Junior PC for Technical Papers, International Conference of Mining Software Repositories

ACTIVITIES

President *Computer Science Graduate Student Association, University of Waterloo* Jul. 2024 - present
Student Volunteer *FSE'24* Jul. 2024
Ubisoft Ambassadors *Hack-The-North 2023* Sept. 2023

PRESENTATIONS

Invited Presentations

Taming the beast: use ML to curb CI costs *at UDC 2024* **Montréal** Feb. 2024
 Ubisoft Developer Conference (UDC) is a Ubisoft internal application-based conference. This talk is broadcast online to all Ubisoft employees globally (800 onsite viewers and 3,469 online viewers).

Paper Presentations

RavenBuild: build outcome prediction *at FSE'24* **Porto de Galinhas, Brazil** Jul. 2024
Code impact beyond disciplinary boundaries *at ICSE'24* **Lisbon, Portugal** Apr. 2024

AWARDS

Outstanding Poster Presentation on the Consortium for Software Engineering Research Nov. 2024
 1 of 4 awardees
SIGSOFT CAPS Travel Grant to Attend FSE'24 Apr. 2024
 1 of 36 awardees
SIGSOFT CAPS Travel Grant to Attend ICSE'24 Feb. 2024
 1 of 99 awardees

EDUCATION

Ph.D, Computer Science *University of Waterloo* **Waterloo** May 2024 - present
 Supervisor: Prof. Shane McIntosh
MMath, Computer Science *University of Waterloo* **Waterloo** Sept. 2021 - Dec. 2023
 Supervisor: Prof. Shane McIntosh
B. Software Eng *McGill University* **Montréal** Sept. 2017 - Apr. 2021