Kosei Horikawa

Ph.D. Student, Nara Institute of Science and Technology
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EDUCATION

Ph.D. Program 2026.04 – present
Graduate School of Science and Technology, Nara Institute of Science and Technology

Master's Program 2024.04 – 2026.03
Graduate School of Science and Technology, Nara Institute of Science and Technology

Information Systems Course 2022.04 – 2024.03
Advanced Engineering Course, Systems Innovation Engineering, National Institute of Technology, Nara College

Department of Information Engineering 2017.04 – 2022.03
National Institute of Technology, Nara College

EXPERIENCE

ACT-X Researcher 2026.10 – 2029.03
Japan Science and Technology Agency (JST)

Visiting Research Student 2026.08 – 2027.08
SAIL & MCIS Lab, Queen's University

Research Assistant 2023.10 – present
Nara Institute of Science and Technology

PUBLICATIONS

INTERNATIONAL CONFERENCES & JOURNALS

TOSEM'26 **Agentic Refactoring: An Empirical Study of AI Coding Agents**
Kosei Horikawa, Hao Li, Yutaro Kashiwa, Bram Adams, Hajimu Iida, Ahmed E. Hassan
ACM Transactions on Software Engineering and Methodology, 2026

ESEM'26 **Is Self-Admitted Technical Debt Tested? An Empirical Study of Coverage, Co-change, and Impact**
Suzuka Yoshimoto, **Kosei Horikawa**, Daniel Feitosa, Yutaro Kashiwa, Hajimu Iida
ACM/IEEE International Symposium on Empirical Software Engineering and Measurement (ESEM), 2026

ICSME'26 **What Are Developers Actually Discussing When Visual Regression Tests Fail?**
Miku Watanabe, **Kosei Horikawa**, Brittany Reid, Yutaro Kashiwa, Hajimu Iida
The 42nd International Conference on Software Maintenance and Evolution (ICSME), 2026

MSR'26 **Do AI Agents Really Improve Code Readability?**
Kyogo Horikawa, **Kosei Horikawa**, Yutaro Kashiwa, Hidetake Uwano, Hajimu Iida
The 23rd International Mining Software Repositories Conference (MSR 2026), 2026

MSR'26 **Testing with AI Agents: An Empirical Study of Test Generation Frequency, Quality, and Coverage**
Suzuka Yoshimoto, Shun Fujita, **Kosei Horikawa**, Daniel Feitosa, Yutaro Kashiwa, Hajimu Iida
The 23rd International Mining Software Repositories Conference (MSR 2026), 2026

ESEM'25 **An Empirical Investigation into Maintenance of Load Testing Scripts.**
Ibuki Nakamura, **Kosei Horikawa**, Brittany Reid, Yutaro Kashiwa, Hajimu Iida
The ACM/IEEE International Symposium on Empirical Software Engineering and Measurement (ESEM 2025), 2025

ICSME'25 **How Does Test Code Differ from Production Code in Terms of Refactoring? An Empirical Study.**
Kosei Horikawa, Yutaro Kashiwa, Bin Lin, Kenji Fujiwara, Hajimu Iida
The 41st International Conference on Software Maintenance and Evolution (ICSME 2025), 2025

DOMESTIC WORKSHOPS (NON-REFEREED)

SS'24 **テストコード固有のリファクタリングが及ぼす影響調査にむけて**
堀川 康生, 馬渕 航, 柏 祐太郎, 藤原 賢二, 飯田 元
電子情報通信学会 ソフトウェアサイエンス研究会 *(SS)*, 2024

SIGSS'23 **テストコードのリファクタリングがテスト実行時間へ及ぼす影響調査にむけて**
堀川 康生, 福本 大介, 柏 祐太郎, 市川 嘉裕, 飯田 元
ソフトウェアサイエンス研究会（*SIGSS*）, 2023

GRANTS

ACT-X (Principal Investigator) 2026.10 – 2029.03
Establishing a Test Quality Assurance Foundation for AI-Driven Development · JPMJAX26MH

NAIST Granite-AI (Support for Innovative Doctoral Students in Next-Generation AI) (Principal Investigator) 2026.04 – 2029.03
Establishing Bug Prediction Techniques to Support Quality Assurance in the Era of Collaboration with AI Agents · JPMJBS2423

AWARDS

Best International Poster Award 2025.09
Software Engineering Symposium (SES), “Understanding Refactoring in Test Code: An Empirical Study”

PROFESSIONAL SERVICE

The 24th International Mining Software Repositories Conference (MSR'27), Mining Challenge Track 2027
Program Committee

The 1st International Workshop on Trustworthy and Responsible aUtonomous SysTems (TRUST) 2026
Program Committee