2024 IEEE/ACM International Workshop on Large Language Models for Code (LLM4Code 2024)

Lisbon, Portugal 20 April 2024



IEEE Catalog Number: CFP24VN4-POD **ISBN:**

979-8-3503-6489-7

Copyright © 2024, Association for Computing Machinery (ACM) All Rights Reserved Copyright for Individual Papers remains with owner/author(s).

*** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.

IEEE Catalog Number: ISBN (Print-On-Demand): ISBN (Online): CFP24VN4-POD 979-8-3503-6489-7 979-8-4007-0579-3

Additional Copies of This Publication Are Available From:

Curran Associates, Inc 57 Morehouse Lane Red Hook, NY 12571 USA Phone: (845) 758-0400 Fax: (845) 758-2633 E-mail: curran@proceedings.com Web: www.proceedings.com



2024 International Workshop on Large Language Models for Code (LLM4Code) LLM4Code 2024

Table of Contents

Message from LLM4Code 2024 Chairs	viii
LLM4Code 2024 Program Committee	ix

2024 International Workshop on Large Language Models for Code (LLM4Code)

Industrial Experience Report on AI-Assisted Coding in Professional Software Development 1 Rudolf Ramler (Software Competence Center Hagenberg GmbH, Austria), Michael Moser (Software Competence Center Hagenberg GmbH, Austria), Lukas Fischer (Software Competence Center Hagenberg GmbH, Austria), Markus Nissl (TU Wien, Austria), and René Heinzl (Building Digital Solutions 421 GmbH, Austria)
Gauging Tech Community Acceptance of Rapid Prototyping in Unfamiliar Programming Languages using LLM Chatbots
LLM4TDD: Best Practices for Test Driven Development Using Large Language Models
LLM-based and Retrieval-Augmented Control Code Generation
Learn to Code Sustainably: An Empirical Study on Green Code Generation
LLM-based Control Code Generation using Image Recognition

Translation of Low-Resource COBOL to Logically Correct and Readable Java leveraging High-Resource Java Refinement	ō
Unit Test Generation using Generative AI : A Comparative Performance Analysis of Autogeneration Tools	1
 PromptSet: A Programmer's Prompting Dataset	2
Enhancing LLM-Based Coding Tools through Native Integration of IDE-Derived Static Context 70 Yichen Li (The Chinese University of Hong Kong, Hong Kong SAR, China), Yun Peng (The Chinese University of Hong Kong, Hong Kong SAR, China), Yintong Huo (The Chinese University of Hong Kong, Hong Kong SAR, China), and Michael Lyu (The Chinese University of Hong Kong, Hong Kong SAR, China))
 Evaluating Fault Localization and Program Repair Capabilities of Existing Closed-Source General-Purpose LLMs	5
MoonBit: Explore the Design of an AI-Friendly Programming Language	•
Toward a New Era of Rapid Development: Assessing GPT-4-Vision's Capabilities in UML-Based Code Generation	1
Investigating the Proficiency of Large Language Models in Formative Feedback Generation for Student Programmers	3
Tackling Students' Coding Assignments with LLMs	1

Applying Large Language Models to Enhance the Assessment of Parallel Functional Programming Assignments
An Empirical Study on Usage and Perceptions of LLMs in a Software Engineering Project 111 Sanka Rasnayaka (National University of Singapore), Guanlin Wang (National University of Singapore), Ridwan Shariffdeen (National University of Singapore), and Ganesh Neelakanta Iyer (National University of Singapore)
LLMs for Relational Reasoning: How Far are We?
Semantically Aligned Question and Code Generation for Automated Insight Generation 127 Ananya Singha (Microsoft, India), Bhavya Chopra (Microsoft, India), Anirudh Khatry (Microsoft, India), Sumit Gulwani (Microsoft, USA), Austin Henley (Microsoft, USA), Vu Le (Microsoft, USA), Chris Parnin (Microsoft, USA), Mukul Singh (Microsoft, USA), and Gust Verbruggen (Microsoft, USA)

Author Index		135
--------------	--	-----