

Facultad de Informática

UNLP

11:00 hs

Aula a confirmar

03
OCT

Conferencia del Dr. Danny Dig

AI Programming Assistant

Many are asking will Generative AI and Large Language Models (LLMs) put programmers out of business? Will it displace my education and research and make it irrelevant? This talk provides a fresh perspective on how Generative AI is not displacing programmers, but it is a thinking partner. We provide examples of how GenAI assists with the 9 hardest things software developers have to do. A top concern remains the trustworthiness of the solutions provided by GenAI. While many solutions resemble the ones produced by expert developers, LLMs are known to produce hallucinations, i.e., solutions that seem plausible at first, but are deeply flawed. To help software developers trust LLM solutions, we developed novel research that synergistically combines the creative potential of LLMs with the safety of static and dynamic analysis from program transformation systems. Our current results show that our approach is effective: it safely automates code changes and is several times better than previous state of the art that relies solely on static analysis. Moreover, our approach produces results that expert developers trust: we submitted patches generated by our LLM-powered tools to famous open-source projects whose developers accepted most of our contributions. This shows the usefulness of our novel approach and ushers us into a new era when LLMs become effective AI assistants for developers. We hope to inspire you with ideas on how LLMs can help you and your education and research go even further.



Bio

Danny Dig is an associate professor of Computer Science at the University of Colorado where he leads research in GenAI for Software Engineering. He is back at the university, after a long industry sabbatical with JetBrains, the company that develops leading IDEs such as IntelliJ IDEA and PyCharm.

Danny is the founder and the executive director for the Center on Pervasive Personalized Intelligence (<https://ppicenter.org>), an industry-university consortium under the US National Science Foundation. Together with partners from industry, government, and academia, they advance the science, practice, and education on Intelligent Systems.

Danny's research group was recognized with more than a dozen distinguished awards at the flagship academic conferences in Software Engineering. Together with his grad students, they released dozens of software systems that are shipping with the official release of the popular development environments which are used daily by millions of developers.

Danny equips transformational leaders in academia, businesses, government so they can reach their full potential.

Para asistir, registrarse en <https://forms.gle/2J9Cg5LwLXzGDwib7>

