TU Clausthal

Prof. Dr. Mohammad Ghafari

Institute for Software and Systems Engineering

Dear Hiring Committee at IPM,

I am writing to express my strong interest in joining the School of Computer Science at IPM. With my proven track record in research, teaching, and industry collaboration, I am confident in my ability to contribute meaningfully to your institution's continued success.

Since April 2022, I have been serving as a Professor and Chair for Secure IT Systems at TU Clausthal, Germany. Previously, I was a Senior Lecturer at the University of Auckland (2020—2022) and a Postdoctoral researcher with Prof. Oscar Nierstrasz at the University of Bern (2016—2020). I earned my PhD in Software Engineering under the supervision of Prof. Carlo Ghezzi at Politecnico di Milano in 2015.

I use empirical methods, program analysis, and AI techniques to develop tools that help developers implement secure software engineering practices. My research has received international recognition, demonstrated by an h-index of 23, publications in high-impact journals and conferences, and regularly serving as a reviewer and program committee member for leading Software Engineering venues. With seven years of experience in the software industry, I am passionate about ensuring that my research has real-world relevance and impact. I have collaborated with leading companies such as Google, Amazon, and TeamViewer to translate research into practice. Notably, my collaboration with Google contributed to securing 368,517 CHF in funding for an SNSF project. Beyond funding and partnerships, my research has had demonstrable societal impact. For example, our security checks were integrated into Android Studio, the official IDE for the Android ecosystem, directly influencing developer workflows. Also, our work on "compilation risks to WebAssembly" attracted media attention, being featured in The Register.

In addition to my research, I am deeply committed to teaching and mentorship. I have taught a wide range of topics, from design and programming to testing and security, at internationally recognized institutions, consistently receiving highly positive student evaluations. I have supervised two PhD students to completion, mentored over 70 MSc and BSc students, and currently supervise three PhD students, all of whom are expected to graduate in March next year.

I have experience in administrative and organizational roles and am fully prepared to continue contributing in this capacity. For example, I currently serve on the executive board of my institute, acted as New Staff Network Lead at the University of Auckland, and was the Vice President for CHOOSE, the Swiss Informatics Society (SI) special interest group focused on innovative Software Engineering topics.

Looking forward, I plan to develop a holistic, intelligent system that continuously monitors development sessions, provides tailored guidance for programming, debugging, and testing tasks, and facilitates the creation of high-quality and secure software systems. This research agenda would add a new dimension to your department's research portfolio, enriching its existing areas of expertise and opening promising avenues for collaboration.

Thank you for considering my application; I look forward to discussing how I can contribute to your institution's success.

Best Regards,

Prof. Dr. Mohammad Ghafari