## **Tomas Petricek**

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## **Professional Highlights**

- 1. International Experience. I obtained PhD from University of Cambridge, worked as post-doctoral researcher at Microsoft Research and in The Alan Turing Institute in London. I then spent 4 years as a lecturer (permanent academic position) at University of Kent. I collaborate with multiple research groups and my recent co-authors and research collaborators are based in the UK, USA, Netherlands, Denmark, Germany and France.
- 2. **Academic Publications.** I am the author of 17 papers in top-tier venues (including PLDI, POPL, ECOOP, ICFP and ICALP), five of which received a best paper award and 24 other papers. I wrote a monograph on history of programming (to be published by Cambridge University Press) and a tutorial book for professional developers (selling over 10,000 copies). I have an h-index of 14 (6 in WoS) and my work has 880+ citations (160 in WoS).
- 3. **Research Impact.** My PhD research, presented in a paper with 130+ citations (35 in WoS), introduced the notion of coeffects which has since been subject of several grants in the UK, France, USA and Iceland. It influenced the design of Scala and has been adopted by Meta in the Hack language. My research on functional programming also directly contributed to the design of the F# language.
- 4. **Peer Recognition.** My paper on integration of external semi-structured data into a static type system, was awarded Distinguished Paper Award at PLDI and selected as ACM SIGPLAN Research Highlight, recognizing it as one of three best programming language papers of the year. I have been an invited keynote speaker at 5 academic and industry conferences and joined the invitation-based IFIP WG 2.16 Language Design group.
- 5. **Technology Transfer**. My work is not limited to papers. The open-source F# Data package I created is the most downloaded F# library and has over 110 industry contributors. My work on asynchronous programming has become a core component of the infrastructure at Jet.com, a start-up acquired by Walmart for \$3bn. The interactive web-based essays presenting my work, published at tomasp.net, have attracted over 50,000 visitors.
- 6. Research Funding. I was awarded the 4-year PRIMUS grant at Charles University (worth €610,000) to establish a resarch group focused on Types for data-centric programming. Previously, I secured research funding (worth £420,000) from the UK Ministry of Defence (Dstl) and GCHQ for applied research on trustworthy and accessible tooling for data science and €50,000 from Google Digital News Initiative.
- 7. **Teaching Experience.** I developed 2 new courses on Programming Language Design and Implementation at Charles University, redesigned the Software Engineering module at University of Kent and taught it to 40+ MSc and 200+ undergraduate students. I taught or supervised labs for 9 other courses ranging from algorithms and formal semantics to human-computer interaction at Charles University, Kent and University of Cambridge.
- 8. **Student and Research Supervision.** I supervise 1 PhD student and 2 post-docs at Charles University. Previously, I supervised 1 PhD student at Unviersity of Kent (graduated in 2023), 1 post-doc (now at University of Cambridge) and 4 graduate and undergraduate internships. At Charles University, I supervised 10 Bachelor's theses (7 defended, 3 ongoing) and 2 Master's theses (2 defended). At University of Kent, I supervised 40+ students for their final-year BSc and MSc projects and I supervised 3 final Part II projects at Cambridge.
- 9. Academic Service. I serve as the General Chair of the International Conference on the Art, Science, and Engineering of Programming 2025 in Prague and have served as an organizer or co-chair of 5 other workshops and conference tracks. I have served as a Program Committee member of 42 conferences and workshops including OOPSLA, ECOOP, HOPL, Programming and Onward! I reviewed papers for 21 other journals and conferences, served as the examiner of 4 PhD theses and reviewed 5 international grant applications.