

Profir-Petru Pârțachi

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Education	Ph.D. in Computer Science <i>Centre for Research on Evolution, Search and Testing</i> Ph.D. Thesis: 'Improving Software Project Health Using Machine Learning' Supervised by Prof. Earl T. Barr (e.barr@ucl.ac.uk)	September 2016 – December 2020 <i>University College London, Gower Street, London WC1E 6BT</i>
	Computer Science Tripos <i>King's College, University of Cambridge</i> BA in Computer Science BA Thesis: 'Deck building in Hearthstone Using a Genetic Algorithm.'	September 2013 – July 2016 <i>Cambridge, United Kingdom</i>
Work Experience	Post-doctoral Researcher <i>National Institute of Informatics</i> Research into the naturalness properties of structured representations of source code. Supervised by Assoc. Prof. Mahito Sugiyama	April 2022 – now <i>Chiyoda-ku, Tokyo, Japan</i>
	Freelance Researcher <i>National Institute of Informatics</i> Research into the naturalness properties of structured representations of source code. Consulting for Assoc. Prof. Mahito Sugiyama	April 2021 – April 2022 <i>Chișinău, Republic of Moldova</i>
	Research Internship <i>National Institute of Informatics</i> Worked on the efficient processing of spatiotemporal data for anomaly detection using Graph Kernels. Supervised by Assoc. Prof. Mahito Sugiyama	October 2018 – April 2019 <i>Chiyoda-ku, Tokyo, Japan</i>
	Hardware/Software Engineer Intern <i>Computer Laboratory, University of Cambridge</i> Worked within the lowRISC team to provide: <ul style="list-style-type: none">• Hardware implementations of DCT, IDCT, and colour space conversions for MPEG2 as AXI-stream accelerators.• Hardware logic to interface AXI-stream accelerators with the lowRISC CPU chip.	June 2016 – September 2016 <i>Cambridge, United Kingdom</i>
	Software Developer Intern <i>Amazon Instant Video</i> Worked on providing an auditing infrastructure by: <ul style="list-style-type: none">• Writing a plug-in to wrap calls to backend systems to log calls and responses.• Storing intercepted calls and pre-processing stored data in Amazon Redshift for auditing reports.	June 2015 – October 2015 <i>London, United Kingdom</i>
Publications	<ul style="list-style-type: none">[1] Pârțachi, & Sugiyama, M., Bringing Structure to Naturalness: On the Naturalness of ASTs. In <i>Proceedings of the 2024 IEEE/ACM 46th International Conference on Software Engineering (ICSE'24): Companion Proceedings</i>, ACM., April, 2024.[2] Pârțachi, P.-P., White, D. R., & Barr, E. T., Aide-mémoire: Improving a Project's Collective Memory via Pull Request-Issue Links. In <i>ACM Transactions on Software Engineering and Methodology</i>, ACM., May, 2022. https://github.com/PPPI/a-m[3] Pârțachi, P.-P., Dash, S. K., Allamanis, M., & Barr, E. T., Flexeme: Untangling Commits Using Lexical Flows. In <i>28th ACM Joint European Software Engineering Conference and</i>	

Symposium on the Foundations of Software Engineering, (ESEC/FSE 2020). Sacramento, California, United States; ACM, November, 2020; <https://partachi.com/Flexeme>

- [4] Pârțachi, P.-P., Treude, C., Dash, S. K., & Barr, E. T., **POSIT: Simultaneously Tagging Natural and Programming Languages**. In *42nd International Conference on Software Engineering (ICSE '20)*. Seoul, Republic of Korea; ACM., July 2020; <https://partachi.com/POSIT>

- [5] Pârțachi, P.-P.. **Improving Software Project Health Using Machine Learning**. PhD diss., UCL (University College London), 2020.

Teaching Experience

Data Mining @ SOKENDAI (NII) <i>Teaching Assistant</i> Leading the introduction to Graph Neural Networks lecture	October 2023 — January 2024 <i>SOKENDAI/National Institute of Informatics</i>
COMPM203 Verification and Validation <i>Teaching Assistant</i> Coursework writing and marking, leading problem-based workshops, assisting exam setting, and exam marking	January 2018 – April 2018, January 2020 – July 2020 <i>University College London</i>
COMP103P Applied Software Development <i>Teaching Assistant</i> Laboratory Supervisor and Group Project Supervisor	January 2018 – April 2018 <i>University College London</i>
COMP213P Systems Engineering <i>Teaching Assistant</i> Group Project Supervisor	October 2017 – April 2018 <i>University College London</i>

Awards

Cambridge Commonwealth Trust 2013-2014
For the purpose of BA Computer Science Tripos at King's College, Cambridge

HMC Reduced Fee Scheme 2012
For the purpose of attending Seaford College for UK A-levels

Reviews

Conferences

- Program Committee member for: Research Track at **FSE 2025**, Research and Experience at **CAIN 2024**, Artefact Track at **ICSE 2024**, **InteNSE 2023**, Research Track at **SANER 2023**, Research Track at **SANER 2022**, Mining Challenge at **MSR 2021**.
- Reviewing for: **AAAI 2025**, **ICML 2024**, **ICLR 2024**, **NeurIPS 2023**.
- Sub-reviewing for: **ASE 2022**, **ISSTA 2021**, **SANER 2021**, **ICSE 2021**, Registered Studies at **ICSME 2020**, **ASE 2020**, **MSR 2020**, **FSE 2019**, **ISSTA 2019**, **ASE 2018**, **ECOOP 2018**, **ISSTA 2018**, and **MSR 2017**.

Journals

- Reviewing for: **TOSEM 2023**, **TOSEM 2022**, **JSS 2022**, **JSS 2021**, **EMSE 2021**, and **MTAP 2020**.
- Sub-reviewing for: **EAAI 2020**, and **TSE 2017**

Technology Skills

Programming Languages: Python, Java, Haskell.
Theorem Proof Assistants: Coq.

Language Skills

Native: Romanian.
Fluent: English, Russian.
Intermediate: Czech, German.
Beginner: Japanese.