

Profir-Petru Pârătachi

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

Teaching Experience	Data Mining @ SOKENDAI (NII)	October 2023 — January 2024
	<i>Teaching Assistant</i>	<i>SOKENDAI/National Institute of Informatics</i>
	Leading the introduction to Graph Neural Networks lecture	
	COMPM203 Verification and Validation	January 2018 – April 2018,
	<i>Teaching Assistant</i>	<i>January 2020 – July 2020</i>
	Coursework writing and marking, leading problem-based workshops, assisting exam setting, and exam marking	<i>University College London</i>
	COMP103P Applied Software Development	January 2018 – April 2018
	<i>Teaching Assistant</i>	<i>University College London</i>
	Laboratory Supervisor and Group Project Supervisor	
	COMP213P Systems Engineering	October 2017 – April 2018
	<i>Teaching Assistant</i>	<i>University College London</i>
	Group Project Supervisor	
Awards	Cambridge Commonwealth Trust 2013-2014	
	<i>For the purpose of BA Computer Science Tripos at King's College, Cambridge</i>	
	HMC Reduced Fee Scheme 2012	
	<i>For the purpose of attending Seaford College for UK A-levels</i>	
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.	