

Profir-Petru Părătachi

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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	Assistant Professor <i>Institute of Science Tokyo</i> Research and Teaching position at the School of Computing, Kobayashi Laboratory	May 2025 – Present <i>Midori-ku, Kanagawa, Japan</i>
	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 – April 2025 <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] Părătachi, 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] Părătachi, 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] Părătachi, 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 Symposium on the Foundations of Software Engineering, (ESEC/FSE 2020)</i> . 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) <i>Teaching Assistant</i> Leading the introduction to Graph Neural Networks lecture COMPM203 Verification and Validation <i>Teaching Assistant</i> Coursework writing and marking, leading problem-based workshops, assisting exam setting, and exam marking COMP103P Applied Software Development <i>Teaching Assistant</i> Laboratory Supervisor and Group Project Supervisor COMP213P Systems Engineering <i>Teaching Assistant</i> Group Project Supervisor	October 2023 – January 2024 <i>SOKENDAI/National Institute of Informatics</i> January 2018 – April 2018, January 2020 – July 2020 <i>University College London</i> January 2018 – April 2018 <i>University College London</i> October 2017 – April 2018 <i>University College London</i>
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 <ul style="list-style-type: none"> – Program Committee member for: Research Track at ICSE 2026, Research Track at FSE 2025, Research and Experience at CAIN 2025, 2024, Artefact Track at ICSE 2024, In-teNSE 2023, Research Track at SANER 2023, 2022, Mining Challenge at MSR 2021. – Reviewing for: AAAI 2025, ICML 2024, ICLR 2025, 2024, NeurIPS 2025, 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 <ul style="list-style-type: none"> – Reviewing for: TOSEM 2023, 2022, JSS 2022, 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. Basic: Japanese.	