Profir-Petru Pârtachi

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Education

PhD in Computer Science

September 2016 – December 2020

Centre for Research on Evolution, Search University College London, Gower Street, and Testina London WC1E 6BT

PhD Thesis: 'Improving Software Project Health Using Machine Learning'

Supervised by Prof. Earl T. Barr (e.barr@ucl.ac.uk)

Computer Science Tripos

September 2013 – July 2016

King's College, University of Cambridge Cambridge, United Kingdom

BA in Computer Science

BA Thesis: 'Deck building in Hearthstone Using a Genetic Algorithm.'

Work Experience

Post-doctoral Researcher

April 2022 - now

Chiyoda-ku, Tokyo, Japan National Institute of Informatics Research into the naturalness properties of structured representations of source-code. Supervised by Assoc. Prof. Mahito Sugiyama

Freelance Researcher

April 2021 – April 2022

National Institute of Informatics Chișnău, Republic of Moldova Research into the naturalness properties of structured representations of source-code. Consulting for Assoc. Prof. Mahito Sugiyama

Research Internship

October 2018 - April 2019

National Institute of Informatics Chiyoda-ku, Tokyo, Japan Worked on the efficient processing of spatiotemporal data for anomaly detection using

Graph Kernels.

Hardware/Software Engineer Intern

June 2016 – September 2016

Computer Laboratory, University of Cambridge

Cambridge, United Kingdom

Worked within the lowRISC team to provide:

Supervised by Assoc. Prof. Mahito Sugiyama

- 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.

Software Developer Intern

June 2015 - October 2015

Amazon Instant Video

London, United Kingdom

Worked on providing an auditing infrastructure by:

- 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.

Publications

- [1] Pârtachi, P.-P., White, D. R., & Barr, E. T., Aide-mémoire: Improving a Project's Collective Memory via Pull Request-Issue Links. In ACM Transactions on Software Engineering and Methodology, ACM., May, 2022. https://github.com/PPPI/a-m
- [2] Pârtachi, P.-P., Dash, S. K., Allamanis, M., & Barr, E. T., Flexeme: Untangling Commits Using Lexical Flows. In 28th ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering. (ESEC/FSE 2020). Sacramento, California, United States; ACM, November, 2020; https:// partachi.com/Flexeme

- [3] Pârtachi, 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
- [4] Pârtachi, P.-P. Improving Software Project Health Using Machine Learning. PhD diss., UCL (University College London), 2020.

Teaching **Experience**

COMPM203 Verification and Validation

January 2020 - July 2020

Teaching Assistant

University College London

Leading problem based workshops, assisting exam setting, and exam marking

COMP103P Applied Software

January 2018 - April 2018

Development

Teaching Assistant

Teaching Assistant

University College London

Laboratory Supervisor and Group Project Supervisor

COMPM203 Verification and Validation

January 2018 - April 2018

University College London

Coursework writing and marking

COMP213P Systems Engineering

October 2017 – April 2018

Teaching Assistant

Group Project Supervisor

University College London

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: Artefact Track at ICSE 2024, InteNSE 2023, Research Track at SANER 2023, Research Track at SANER 2022, Mining Challenge at MSR 2021.
- Reviewing for: 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, Haskel.

Theorem Proof Assistants: Coq.

Language Skills

Native: Romanian.

English, Russian. Fluent: Intermediate: Czech, German.

Beginner: Japanese.