Profir-Petru Pârțachi

E-Mail: me@partachi.com

Education

PhD in Computer Science September 2016 – December 2020
Centre for Research on Evolution, Search *University College London, Gower Street,*
and Testing *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
National Institute of Informatics *Chiyoda-ku, Tokyo, Japan*
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.
Supervised by Assoc. Prof. Mahito Sugiyama

Hardware/Software Engineer Intern June 2016 – September 2016
Computer Laboratory, University of *Cambridge, United Kingdom*
Cambridge
Worked within the lowRISC team to provide:

- 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] Pârțachi, 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] Pârțachi, 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] 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

[4] Pârțachi, 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 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 Development　　　　**January 2018 – April 2018**
Teaching Assistant　　　　*University College London*
Laboratory Supervisor and Group Project Supervisor

COMPM203 Verification and Validation　　　　**January 2018 – April 2018**
Teaching Assistant　　　　*University College London*
Coursework writing and marking

COMP213P Systems Engineering　　　　**October 2017 – April 2018**
Teaching Assistant　　　　*University College London*
Group Project Supervisor

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 the Research Track at **SANER 2023**
– Sub-reviewing for **ASE 2022**
– Program Committee member for the Research Track at **SANER 2022**
– Sub-reviewing for **ISSTA 2021**
– Program Committee member for the Mining Challenge at **MSR 2021**
– Sub-reviewing for **SANER 2021**
– Sub-reviewing for **ICSE 2021**
– Sub-reviewing Registered Studies for **ICSME 2020**
– Sub-reviewing for **ASE 2020**
– Sub-reviewing for **MSR 2020**
– Sub-reviewing for **FSE 2019**
– Sub-reviewing for **ISSTA 2019**
– Sub-reviewing for **ASE 2018**
– Sub-reviewing for **ECOOP 2018**
– Sub-reviewing for **ISSTA 2018**
– Sub-reviewing for **MSR 2017**

Journals

– Reviewing for **TOSEM 2022**
– Reviewing for **JSS 2022**

- Reviewing for **JSS 2021**
- Reviewing for **EMSE 2021**
- Reviewing for **MTAP 2020**
- Sub-reviewing for **EAAI 2020**
- Sub-reviewing for **TSE 2017**

Technology Skills

| **Programming Languages:** | Python, Java, Haskel, SystemVerilog. |
| **Theorem Proof Assistants:** | Coq. |

Language Skills

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