# 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[at]ucl[dot]ac[dot]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

Chișnău, Republic of Moldova National Institute of Informatics 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

Supervised by Assoc. Prof. Mahito Sugiyama

### Hardware/Software Engineer Intern

June 2016 – September 2016

Computer Laboratory, University of

Cambridge, United Kingdom

Cambridge

Graph Kernels.

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] 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] Pârţachi, 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 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

University College London

Teaching Assistant
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: 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: 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, Haskel.

Theorem Proof Assistants: Coq.

## Language Skills

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