Profir-Petru Pârtachi

Tel: On Request E-Mail: partachi@cantab.net

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 Hons in Computer Science

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

Work Experience

Freelance Researcher/External

April 2021 – now

Consultant

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 National Institute of Informatics, Tokyo 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

University of Cambridge

Computer Laboratory, University of Cambridge, 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

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] Pârţachi, 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://pppi.github.io/Flexeme
- [2] 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://pppi.github.io/POSIT

Teaching Experience

Teaching Assistant at University College London:

COMPM203 Verification and Validation

January 2020 - July 2020

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

COMP103P Applied Software Development

January 2018 - April 2018

Laboratory Supervisor and Group Project Supervisor

COMPM203 Verification and Validation

January 2018 – April 2018

Coursework writing and marking

COMP213P Systems Engineering

October 2017 - April 2018

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 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. Ru

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