

VANYA YANEVA

Informatics Forum 4.23, 10 Crichton Street, EH8 9AB, Edinburgh, UK

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SUMMARY

PhD candidate in the field of Software Engineering with focus on the development of novel methods and tools for the automation and optimisation of software testing. Strong technical background in High Performance Computing, including parallel programming models, tools and architectures and 3 years of experience as a software engineer in industry. Enthusiastic learner, who loves developing efficient solutions to problems, working closely with other software engineers and mentoring interns and junior developers.

TECHNICAL SKILLS

Parallel Programming	C, OpenCL, OpenMP, MPI
Other Programming	C++, R, Python, C#
Tools	Linux, Git, Vim, Clang LibTooling, L ^A T _E X, Windows, Visual Studio

EDUCATION

University of Edinburgh

- **PhD, CDT in Pervasive Parallelism** Sept 2015 - March 2020 (expected)
Research topic: *Compiler-Assisted Parallel Testing on Heterogeneous Architectures*.
Developing methods to automate and speedup the execution of functional software testing by executing test cases in parallel on accelerator architectures.
Earned an **MSc by Research (with distinction)** in August 2016.
Supervised an intern in May-July 2018.
- **MSc, High Performance Computing (with distinction)** Sept 2012 - Aug 2013
A taught Master's, providing extensive background in HPC programming, tools and architectures.
Master's project: *Visual Parallel Programming*. Developed a graphical framework to allow programmers to visually express parallel aspects of their applications, demonstrating that using visual representations could help make parallel programming more intuitive and accessible.
- **BSc, Computer Science and Mathematics (2:1)** Sept 2008 - May 2012
Undergraduate Exchange at the University of Chicago Sept 2010 - June 2011

WORK EXPERIENCE

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|-------------------------------|----------------------|
| Codeplay Software Ltd. | May 2017 - Aug 2017 |
| <i>C++ Intern</i> | <i>Edinburgh, UK</i> |
- Worked as a software engineer on the ComputeCpp runtime and SDK, using C++14. ComputeCpp is Codeplay's implementation of SYCL - an open standard for developing cross platform applications on heterogeneous architectures using C++.
 - Developed Python and Jenkins scripts to automate performance benchmarking.

Excelian Ltd.*Technology Consultant*

Oct 2013 - Aug 2015

London, UK

- Worked as a software engineer on an in-house trading application at UniCredit Bank, using C#. The tasks included incorporating large existing codebases and working with legacy code.
- Performed numerous process management tasks, including administrating releases, tracking features and bugs and managing user accounts.
- Supervised one junior developer.

Ateeda Ltd.*Software Developer*

Aug 2012 - Aug 2013

Edinburgh, UK

- Successfully ported a GUI intensive application from C# to Java and was responsible for the maintenance and extension of the produced application.
- Investigated particular sources of error in the CORDIC algorithm and produced a paper presenting my findings and making recommendations for techniques to reduce the impact of the errors.

PUBLICATIONS

Accelerated Finite State Machine Test Execution Using GPUs

Dec 2018

*Vanya Yaneva, Arnav Kapoor, Ajitha Rajan and Christophe Dubach**APSEC'18, Nara, Japan***Assessing the Effect of Data Transformations on Test Suite Compilation**

Oct 2018

*Panagiotis Stratis, Vanya Yaneva, Ajitha Rajan**ESEM'18, Oulu, Finland***Compiler-Assisted Test Acceleration Using GPUs**

June 2018

*Vanya Yaneva**ICSE'18, ACM Student Research Competition, Gothenburg, Sweden***Compiler-Assisted Test Acceleration on GPUs for Embedded Software**

July 2017

*Vanya Yaneva, Ajitha Rajan and Christophe Dubach**ISSTA'17, Santa Barbara, CA***ParTeCL: Parallel Testing Using OpenCL**

July 2017

*Vanya Yaneva, Ajitha Rajan and Christophe Dubach**ISSTA'17, Santa Barbara, CA***AWARDS**

The Claire Jones Prize, School of Informatics, University of Edinburgh

Nov 2016

Awarded to the best performing female MSc student.

ICE Award, Excelian Ltd.

June 2014

Excelian's monthly employee award, received for outstanding feedback from UniCredit Bank.

Student Employee of the Year 2013 Off Campus Category

June 2013

National Association for Student Employment Services

Institutional Level Award - University of Edinburgh

High Performance Computing Scholarship

May 2012

School of Physics & Astronomy, University of Edinburgh