VANYA YANEVA

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SUMMARY

PhD candidate in the field of Software Engineering with focus on Software Testing; specific focus on the development of novel methods and tools to automate and optimise software testing. Strong technical background in High Performance Computing, including parallel programming models, tools and architectures. 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#
	Experience with GUI development in Qt, WPF and Java Swing
Tools	Linux, Git, Vim, Clang LibTooling, LaTeX, Windows, Visual Studio

EDUCATION

University of Edinburgh

· **PhD, CDT in Pervasive Parallelism**   Sept 2015 - Aug 2020 (expected)
Thesis: *Accelerating Test Execution Using GPUs.*
Developing methods to automate and accelerate functional software testing by executing test cases in parallel on GPU threads.
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

Sumdog Ltd.   Dec 2019 - Jan 2020
C++ Developer   *Edinburgh, UK*

· Successfully upgraded the Yenka application to Qt5, involving the migration from QtWebKit to the QtWebEngine framework.

Codeplay Software Ltd.   May 2017 - Aug 2017
C++ Intern   *Edinburgh, UK*

· 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.   Oct 2013 - Aug 2015
Technology Consultant   *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.   Aug 2012 - Aug 2013
Software Developer   *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

GPU Acceleration of FSM Test Execution: Improving Scale and Performance March 2020
Vanya Yaneva, Ajitha Rajan and Christophe Dubach   *STVR'20, submitted, under review*

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