**Tansel Arif**

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SKILLS

Programming: TSQL, C++, C#, R

General: Numerical computing, Modeling and simulation of fluid mechanics and thermodynamics, Strong ad hoc problem solving

Languages: English (native), Turkish (fluent)

EDUCATION

**Imperial College London 2011 - 2015**

PhD. Materials Science and Engineering

**Queen Mary, University of London 2009 – 2010**

MSci. (1st Class Hons) Mathematics

**Queen Mary, University of London 2006 – 2009**

BSc. (1st Class Hons) Mathematics

EXPERIENCE

**FIS (SunGard) Sep 2017 – Present**

**Consultant, Risk and Compliance**

Responsibilities:

* Specification and implementation of mathematical models using C# for the efficient pricing of complex financial products, for the evolution of future market and credit events and for the calibration of risk models.
* Verifying that new and existing models are correct and appropriate.
* Providing client support on questions related to software behaviour.

**FIS (SunGard) Sep 2015 – 2017**

**Consultant, Risk and Compliance**

Previously SunGard Financial Systems. A vendor providing solutions to financial corporations in terms of risk and exposure management and financial regulatory compliance.

Responsibilities:

* Maintenance, optimisation and troubleshooting of test farms / servers / databases which clients use for test cases for product developments using Delphi and T-SQL (Microsoft SQL Server)
* Providing code changes and detailed instructions for the deployment of packages on to live banking systems
* Finding and carrying out optimisations and fixes to these environments
* Liaising and working with clients for the improvements and customisation of the product to suit their needs
* Implementing code changes (Pascal/C#) to improve or fix issues in calculation methodology/equations
* Customisation of the user facing web code to suit the needs and requirements of users (Javascript/C#)
* Writing documentation for any new features provided for the client
* Coding and producing independent support utilities to improve client satisfaction
* Aiding fellow colleagues in any issues they may have

**Private Tutor 2011 - 2015**

* On average 8-12 hours a week of private tuition in Mathematics

RESEARCH

**Imperial College London 2011 – 2015**

* The focus during my PhD research has been on the development of theory and code for the phase-field modelling and simulation of microstructures found in steel [1,2] as well as the formation of van der Waals fluids using the smoothed particle hydrodynamics method.
* Given my interest in the prediction of general evolutionary phenomena, I have collaborated on cellular automata treatment for solidification [3].
* My final results involve the development of tools to combine the capabilities of multiple models to deal with situations involving fluid flow, solidification and solid-state phase transformations.

**Queen Mary, University of London 2009 – 2010**

* Investigated the pure mathematical constructions of codes in coding theory.
* The work involved writing code and alternative proofs for some known codes.

TRAINING

* Inferential Statistics – Inferential Statistics with R. Coursera – Aug 2017
* Front-End Web UI Frameworks and Tools. Coursera – Dec 2016
* Valuation: Alternative Methods – Financial Valuation. Coursera – Aug 2016

AWARDS

* National Student Conference in Metallic Materials – Awarded best presentation prize for the presentation of PhD project. Jun 2012
* Queen Mary University of London – Awarded the Westfield Trust Prize for outstanding academic achievement. Jul 2009
* QCA Lewisham College – Gym, Exercise and Fitness Knowledge instructor – May 2006
* Lewisham College – Awarded enrichment certificate in peer mentoring – Jul 2005

SPEAKING

* Imperial summer seminar series – Talk “A fundamental problem in computational steels processing” - Jun 2014
* International Conference on Processing & Manufacturing of Advanced Materials – Poster “A phase-field model for the formation of martensite and bainite” – Dec 2013
* Student Conference in Metallic Materials – Talk “A phase-field model for martensite” – Jun 2012

PUBLICATIONS

* A phase-field model for bainitic transformation, Computational Materials Science 77 (2013) 230, [doi:10.1016/j.commatsci.2013.04.044]
* A phase-field Model for the Formation of Martensite and Bainite, Advanced Materials Research 922 (2014) 31, [doi:10.4028/www.scientific.net/AMR.922.31]
* A three-dimensional cellular automata model for dendrite growth with various crystallographic orientations during solidification, Metallurgical and Materials Transactions B 45 (2014) 719, [doi:10.4028/www.scientific.net/AMR.922.31]