Tansel Arif

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Skills

Programming	TSQL, C++, Maple, C#, Delphi, R
General	Numerical computing, Modeling and simulation of fluid mechanics and thermodynamics, Strong ad hoc problem solving
Languages	English (native), Turkish (fluent)

Work and Teaching Experience

2015 – present — **FIS - Financial Consultant in Risk and Compliance**, UK.

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

- Maintenance, optimisation and troubleshooting of test farms / servers / databases which clients use for test cases for product development 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 improvement 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 stopping issues they may have

2011 – 2015 — **Private tutor**, UK.

On average 8-12 hours a week of private tuition in mathematics.

Education

2011 - 2015 — **PhD in Materials Sience and Engineering**, *Imperial College London*, UK.
Supervisor: Dr. R. Qin

2009 - 2010 — **Masters in Mathematics (MSci First Class)**, *Queen Mary University of London*, UK.
Supervisor: Prof. P. Cameron

2006 - 2009 — **Bachelor's degree in Mathematics (First Class)**, *Queen Mary University of London*, UK.

2005 - 2006 — **Access to Science and Maths (60 credits at level 3, Modules: Maths, Physics, IT, Chemistry, Biology, English)**, *Lewisham College*, UK.

Research Experience

2011 – present **Imperial College London**, UK.
The main focus during the course of 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 in order to combine the capabilities of multiple models to deal with situations involving fluid flow, solidification and solid state phase transformations.

2009 – 2010 **Queen Mary University of London**, UK.
I investigated the pure mathematical constructions of codes in coding theory. The work involved writing code and alternative proofs for some known codes.

Awards and Professional Training

August 2017 Inferential Statistics - Inferential Statistics with R. [Coursera-Certificate]

December 2016 Front-End Web UI Frameworks and Tools - Bootstrap and Web Development. [Coursera-Certificate]

August 2016 Valuation: Alternative Methods - Financial Valuation. [Coursera-Certificate]

June 2012 National Student Conference in Metallic Materials - Awarded best presentation prize for the presentation of PhD project. [DepartmentLetters.pdf]

July 2009 Queen Mary University of London - Awarded the Westfield Trust Prize for outstanding academic achievement, [Awards.pdf]

May 2006 QCA Lewisham College - Gym, Exercise and Fitness Knowledge instructor.

July 2005 Lewisham College - Awarded enrichment certificate in peer mentoring.

Talks, Posters & Seminars

June 2014 Imperial summer seminar series - Talk "A fundamental problem in computational steels processing".

December 2013 International Conference on Processing & Manufacturing of Advanced Materials - Poster "A phase-field model for the formation of martensite and bainite" [ThermecProgramme.pdf]

June 2012 National Student Conference in Metallic Materials - Talk "A phase-field model for martensite".

Interests and hobbies

Bouldering, Advanced calisthenics (work in progress), Boxing, Football

Publications (academia.edu)

[1] T. T. Arif and R. S. Qin: *A phase-field model for bainitic transformation*, Computational Materials Science **77** (2013) 230, [doi:10.1016/j.commatsci.2013.04.044].

[2] T. T. Arif and R. S. Qin, *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].

[3] Y. Zhao, D. Chen, M. Long, T. Arif and R. Qin, *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].