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Tansel Arif

Skills

Programming TSQL, C++, C#, Delphi, R

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

Languages English (native), Turkish (fluent)

Education

2011 - 2015 **Imperial College London**, *PhD. Materials Science and Engineering*, UK.

2009 - 2010 **Queen Mary University of London**, *MSci. (1^{st} Class Hons) Mathematics*, UK.

2006 - 2009 **Queen Mary University of London**, *BSc. (1^{st} Class Hons) Mathematics*, UK.

Work and Teaching Experience

2017 – present **FIS (SunGard) - Quantitative Consultant**, UK.
Previously SunGard Financial Systems. A vendor providing solutions to financial corporations in terms of risk and exposure management and financial regulatory compliance.
Responsibilities:
- Finding and carrying out optimisations and fixes to deal valuation methodologies.
- Implementing customisations to analytical software.
- Providing explanations for the calculations used in our in-house software.
- Acting as a conduit between the client, the development team and the theoretical material.
- Resolving any blocks in the progress of client requests.

2015 – 2017 **FIS (SunGard) - Consultant, 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.
Responsibilities:
- 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.

Research Experience

2011 – 2015 **Imperial College London**, UK.

- 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.

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

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

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]

Awards

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.

Speaking

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".

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].