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## Work and Teaching Experience

- 2015 – present **FIS - Project 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.

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## Education

- 2011 - 2015 **PhD in Materials Science 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.**

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## 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.

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## 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.

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## Skills

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

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## 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”.

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## Interests and hobbies

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

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## 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](#)].