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## EDUCATION

- 2007 - Present**      **Studying for a PhD in Chemical Engineering.**  
*CoMo Group, University of Cambridge.*  
Computational Modelling of Multiphase, Turbulent, Reactive Flows.
- 2003 - 2007**      **BA & MEng (Hons) Chemical Engineering.**  
*Robinson College, University of Cambridge.*  
Grade: **Upper Second Class**. Rank: **9/36**. Score: **69%**.  
*Reading School, Reading.*  
**4 A-Levels:** Further Maths(**A**), Maths(**A**), Physics(**A**), Chemistry(**A**).  
**13 GCSEs:** All at Grade **A\*/A**.

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## WORK EXPERIENCE

- 2007 – 2010**      **Undergraduate Teaching**  
*University of Cambridge, UK.*
- I supervise chemical engineering undergraduate students in: Process Dynamics and Control, Corrosion and Materials, Safety, Health and the Environment and Engineering Maths.
  - In 2009 I supervised a student working on a 6 month project towards a Masters degree.
  - I have also demonstrated computational fluid dynamics and computing courses.
- 2007 – 2010**      **Weblab Coordinator**  
*University of Cambridge, UK.*
- I ran two of the undergraduate coursework exercises in Reactors and Process Dynamics and Control.
  - Responsibilities involved administration, maintenance of the lab equipment, supervision of the students and the marking of their final reports.
- 2006**      **Process Engineering Internship**  
*Aker Kvaerner. Portsmouth, UK.*
- Was part of the process engineering team designing a new PTA plant in China.
  - Most valuable part of the experience was observing how senior engineers use their knowledge and experience to make quick judgments and prioritise tasks.
  - Had responsibility for altering and organising the 80 plant schematics and also performed checks on equipment data sheets and pipelines.

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## SKILLS

- IT**      Extensive experience of Unix/Windows.  
*Programming Languages:* C++, FORTRAN.  
*Software:* Office, L<sup>A</sup>T<sub>E</sub>X, Matlab.  
*CFD packages:* OpenFOAM and STAR-CD.
- Languages**      English - Native.  
Mandarin Chinese - Certificate of Proficiency (Basic).

## ACTIVITIES & ACHIEVEMENTS

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### Leadership      Captain of College Football Team (2008-2010)

- For two years I managed and played for the college football team. The team had not won a game the previous season. I registered the team with the Football Association, obtained some funding and organised training sessions once a week.
- The team's performance improved and the number of players taking part over the two years increased.

### Organisation      Treasurer of College Graduate Students' Association (2009) Treasurer of College Undergraduate Students' Association (2005)

- Main roles were to distribute the money given to us by college to the various societies and external companies that we dealt with. I also had to propose a budget for the associations at the end of the financial year.
- Produced a new finance booklet for new students, highlighting the funding and bursaries that are available to them.
- Produced handover notes to help the next treasurer to settle into their new role.

### Negotiation      Student Representative on Dept. Syndicate (2009)

- Volunteered to represent the graduate students on department committees.
- Raised awareness about the committees amongst the students. Persuaded the committee to equalise the workload of some of the 4th year courses.

### Communication      Best Presentation Prize at Graduate Conference (2010)

- Won first prize (out of 33 PhD students) for a 40 minute talk I gave about my research to the rest of the department.
- I demonstrated the ability to explain my research to an audience that was not familiar with the research area.

## AWARDS

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**1st Prize:** Graduate Conference Presentation. Dept. of Chemical Engineering, 2010.

**2nd Prize:** 1st Year Graduate Poster and Presentation. Dept. of Chemical Engineering, 2008.

**A-level:** Chemistry Prize.

## PUBLICATIONS

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Akroyd, J., Smith, A.J., **McGlashan, L. R.** and Kraft, M. (2010). Comparison of the stochastic fields method and DQMoM-IEM as turbulent reaction closures, *Chemical Engineering Science* 65(20): 5429–5441.

Akroyd, J., Smith, A.J., **McGlashan, L. R.** and Kraft, M. (2010). Numerical investigation of DQMoM-IEM as a turbulent reaction closure, *Chemical Engineering Science* 65(6): 1915–1924.

## REFEREES

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