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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**.

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.

SKILLS

- IT** Extensive experience of Unix/Windows.
Programming Languages: C++, FORTRAN.
Software: Office, L^AT_EX, Matlab.
CFD packages: OpenFOAM and STAR-CD.
- Languages** English - Native.
Mandarin Chinese - Certificate of Proficiency (Basic).

ACTIVITIES & ACHIEVEMENTS

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 finance booklet for new students, highlighting the funding and bursaries that are available to them.
- Produced handover notes to help the next treasurer in order to enable a smoother transition.

Negotiation Student Representative on Dept. Syndicate (2009)

- Volunteered to represent the graduate students on department committees.
- Raised awareness about the committees amongst the students. Managed to get persuade 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

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

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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