

# Dream Coder

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## Objective

Admission to Mechanical Engineering/Power Engineering graduate programs

## Education

2010.09–2014.06

**B.E. in Mechanical Engineering**, Peking University (PKU), Beijing, China.

- GPA: 100/100
- Rank: 1/23
- IELTS 6.5 (R 7, L 7, S 7, W 7), GRE 325 (Verbal 160, Quantitative 165, AW 6.0)
- Featured courses: Mechanical Design 92, Computer Control System Power Engineering 94, Computer Aided Technique 89, Technology of CAD 91, Analogue Electronics 90, Industrial Practice 90, Experiment on Foundation of Project Control 95

## Publication

- Yu, X., Biodegradable polymer microcapsules fabrication through a template-free approach. *Langmuir* 2011, 27, 10265–10273. (IF=4.186)
- Yu, X. (co-first), Generation of polymer nanocapsules via a membrane-extrusion emulsification approach. *Materials Letters* 2012, 77, 96–99. (IF=2.307)

## Work Experience

2013–present

**Research Assistant**, *State Key Laboratory of Coal Combustion*.

—Gas-solid Reaction Kinetics Analyzer Based on Micro-dual Bed Fuel-staging Thermal Transition China NSF Funding: 2011YQ120039

Advisor Prof. YAO, Hong

- Verified the flow field distribution stimulated by CFD
- Tested the pressure distribution and particle trajectory in the flow field
- Wrote the online data collection and processing program for the CO<sub>2</sub> detector, the detector together with the program was patented as new invention, **PATENT NO. 201310438571.9**

2013.05

**Modeling the Pulverized Coal Combustion in a Single Burner Furnace.**

—Supervised by Prof. FANG, Qingyan

- Stimulated velocity field, temperature field, oxygen concentration field of the furnace with CFD
- Optimized the combustion condition considering different impact factors

## Internship

2013.07–2013.08

**Marketing Assistant**, *Pepsi China, Beijing*.

Marketing data analysis

2013.06–2013.07

**Operational Department Assistant**, *Xiangyang Power Plant*.

Steam turbine maintenance

## Skills

VC/VB/Matlab/Access/SQL Server/Fluent/Gambit

LaTeX