Consider

combining objectives &

summary of

qualifications

# Sample #4: Resume STEM

DO NOT PLAGIARIZE THESE EXAMPLES! USE OWN WORDS

# **Robert Hwang**

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#### **SUMMARY**

Ph.D. level Chemical Engineer pursuing a Research & Development or Process Development position utilizing analytical, technical, management, and communication skills

- 8 years of research experience in the field of chemical engineering with an emphasis on rheology
- 5 years of experience with formulation, characterization, and simulation of complex fluids
- High-level management skills demonstrated by holding leadership and supervisory positions
- Excellent technical writing and communication skills proven by 2 publications and 5 conference presentations

#### **EDUCATION**

Ph.D. Chemical Engineering, University of California (UC), Santa Barbara, CA

01/2016 (Expected)

*GPA*: 3.89

Dissertation: "Rheology, kinematics, and structure of shear-banding wormlike micelles"

Advisors: Mary Hernandez, Ph.D.

**B.S. Chemical Engineering**, North Carolina State University, Raleigh, NC *Summa Cum Laude* 

If relevant or wellknown, you can include advisor's name 08/2010

## TECHNICAL SKILLS

**Experiment:** Rheometry, Particle Tracking Velocimetry (PTV), Small-Angle Light Scattering (SALS), Small-

Angle Neutron Scattering (SANS), Rheo-NMR, NMR Spectroscopy

Computation: MATLAB, Mathematica, Python, Fortran, Igor Pro, SasView, AspenPlus, R Programming, Origin

**Statistics**: Data Mining, Time Series Analysis

Lab Management: Standard Operating Procedure (SOP) writing, instrument training and maintenance

**Language**: Bilingual in English and Mandarin Chinese

#### PROFESSIONAL EXPERIENCE

# University of California, Santa Barbara, CA

09/2010 - Current

Graduate Research Assistant, Department of Chemical Engineering

- Identified the influence of self-assembling structure on the rheology of wormlike micelles through design, execution, and interpretation of experiments/simulations
- Developed advanced method for flow visualization analysis
- Managed lab operation by developing SOPs and providing instrument training and maintenance
- Led 3 junior researchers through instrument training, lectures, and discussions
- Presented in 5 nationwide conferences, drafted 3 annual research reports in response to funding agencies, and prepared 2 articles for high-impact journals

Balance between sharing high technical information and transferable skills

Graduate Teaching Assistant, Department of Electrical Engineering

- Supervised ~20 undergraduate students in the chemical reaction lab and ensured safety
- Led review sessions and elaborated difficult concepts to ~60 students of various knowledge levels
- Provided constructive feedback on students' assignments and reports

# WNK Center for Neutron Research, Boston, MA

 $08/2014 \ \& \ 04/2015$ 

Visiting Researcher

- Collaborated with staff scientists to perform small-angle neutron scattering (SANS) experiments
- Developed new models to analyze and interpret SANS data (1 publication, in review)

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### North Carolina State University, Raleigh, NC

08/2006 - 08/2010

Undergraduate Research Assistant, Department of Chemical Engineering

- Studied dynamics of signaling pathways relevant to the development of non-alcoholic fatty liver disease
- Delivered or contributed to 3 conference presentations and 2 journal publications

#### LEADERSHIP EXPERIENCE

# Co-chairman, Organization Committee of 6th Biotronics-Clorox Graduate Student Symposium

Department of Chemical Engineering, UC Santa Barbara

04/2014 - 10/2015

- Supervised 6 subcommittees to coordinate venue setup, participation, marketing, and budgeting
- Raised funds from industrial partners and managed event budget of ~\$6,000
- Coordinated outreach to ~15 industrial participants and communicated event logistics
- Chaired Bioengineering & Soft Matter presentation and led the discussion of a group of 100+ participants

#### **VOLUNTEER EXPERIENCE**

Outreach Presenter, Society of Rheology

10/2013

Raised public awareness of complex fluid studies through scientific demonstration and communication

#### Community Service Volunteer, North Carolina State University

03/2007

Painted houses for residents in the community of Bryan/College Station

#### AWARDS

Student Member Travel Grant Recipient, Society of Rheology	2015
Outstanding Undergraduate Research Award, Department of Chemical Engineering, NC State University	2009
Undergraduate Research Scholar, NC State University	2009
Undergraduate Summer Research Grant Recipient, College of Engineering, NC State University	2008
Ruth and William J. Smith '52 Scholarship, Department of Chemical Engineering, NC State University	2007

#### RELEVANT PUBLICATIONS

- 1. **R. Hwang**, M.C. Roberts, L Patricks, M.E. Helgeson, "Distinguishing chemical components of various samples", *In preparation*.
- 2. **R. Hwang**, L.Smith, M.E. Hansen, "Probing the influence of linear processes on various samples", *Journal of Rheology* (in review).

# RELEVANT PRESENTATIONS

- 1. **R. Hwang**, M.C. Roberts, L Patricks, M.E. Helgeson, "Distinguishing chemical components of various samples". AIChE Annual Meeting, San Francisco, CA (2016).
- 2. M. Calls, S.Adams, **R. Hwang**, M.E., "Using high tech equipment to analyze the different impacts on various species". American Conference on Neutron Scattering, Modesto, CA (2016).
- R. Hwang, L Patricks, M.C. Roberts, "Probing the influence of linear processes on various samples; exploring the
  depths of this research study". Gordon Research Seminar Macromolecular & Polyelectrolyte Solutions, Ventura,
  CA (2015).
- 4. **R. Hwang**, L Patricks, and M.C. Roberts, "Testing and exploring the depths of this research project". 86<sup>th</sup> Annual Meeting of the Society of Rheology, Boston, MA (2014).
- 5. **R. Hwang**, L Patricks, M.C. Roberts, "Effect of curvature on shear banding of wormlike micelles in Taylor-Couette flow". 87<sup>th</sup> Annual Meeting of the Society of Rheology, Philadelphia, PA (2013).

#### <u>REFERENCES</u> ← Optional

Available upon request