Leadership and Teaching Experience

ACSSY (Association of Chinese Students & Scholars at Yale) *New Haven, CT*
Vice President, Recreation & Cultural affairs *2015*
- Led a group of 20+ members to organize Chinese cultural performances, singing competitions, balls and workshops (4+ large events and 10+ small events)
- Directed ACSSY 2015 Spring Festival Gala at Yale Woolsey Hall (with 15+ performances, 80+ staff and 1000+ audiences)

Mechanical Engineering and Material Sciences, Yale University *New Haven, CT*
Teaching Assistant, Fluid & Thermal Energy Sciences *Spring 2015*
- Assisted the instructor with lecture materials and assignment design for 20+ students
- Held office hours, led discussion sessions and graded assignments every week

Yale Center for Research on Interface Structures and Phenomena *New Haven, CT*
Member *2014 - Present*
- Guided lab tours and volunteered for lectures with hands-on demos for local public
- Given oral & poster presentations and written proposals & summaries for funding purposes

Selected Peer-Reviewed Publications

- **Fan, M.**, Wang, M., Zhang, K., Liu, Y., Schroers, J., Shattuck, M. D., & O'Hern, C. S. (2016). "The effects of cooling rate on particle rearrangement statistics: Rapidly cooled glasses are more ductile and less reversible." Preprint available: arXiv:1607.04221. Submitted to *Physical Review Letters*.
- Zhang, K.*, **Fan, M.* (co-first author)**, Liu, Y., Schroers, J., Shattuck, M. D., & O' Hern, C. S. (2015). "Beyond packing of hard spheres: The effects of core softness, non-additivity, intermediate-range repulsion, and many-body interactions on the glass-forming ability of bulk metallic glasses." *The Journal of Chemical Physics*, 143(18), 184502.
- Zhang, Y., Shen, W., **Fan, M.**, Zhang, H., & Li, S. (2014). "Laminar flame speed studies of lean premixed H_2/CO/air flames." *Combustion and Flame*, 161(10), 2492-2495.
- Das, S., Waghmare, P. R., **Fan, M.**, Gunda, N. S. K., Roy, S. S., & Mitra, S. K. (2012). "Dynamics of liquid droplets in an evaporating drop: liquid droplet 'coffee stain' effect." *RSC Advances*, 2(22), 8390-8401.

Honors and Awards

2016 **1 of 5**, American Physical Society GSNP Student Speaker Award Finalist
2012 **top 1%**, Overseas Research Fellowship, Tsinghua University
2011 **2nd Prize**, Theoretical Mechanics Competition, Tsinghua University
2011 **top 10%**, Academic Scholarship, Tsinghua University
2010 **top 20%**, Academic Scholarship, Tsinghua University
2008 **1st Prize**, China National Mathematics Olympiad

Skills

- **Languages:** English and Chinese
- **Programming:** Shell, C, C++, Matlab, Python, LaTeX
- **Software:** LAMMPS, Comsol, Numeca, Chemkin, Tecplot, Auto CAD, SolidWorks, Mathemetica, OriginLab
- **Technique:** Molecular Dynamics Simulation, Computational Fluid Dynamics, Laser Diagnostics (especially PIV), Microfluidics, Metal Working&Design