

# Chao (Chris) QIN

2308 Fontaine Ave Apt B • Charlottesville, VA • 22903  
PHONE (434) 872-3343 • E-MAIL chrisqin@virginia.edu

---

## PROFILE

Engineering PhD with solid knowledge of aerodynamics, structural dynamics, and wind energy technology, skilled in CFD simulation with multiple projects

---

## EDUCATION

### Doctor of Philosophy

University of Virginia, Charlottesville, Virginia, USA 22904  
Mechanical & Aerospace Engineering, "Simulation of Spray-Enhanced Compressed Air Energy Storage for Wind Turbines," advised by Prof. Eric Loth  
Graduated 2014, Overall GPA 3.95/4.00

### Bachelor of Science

Tsinghua University, Beijing, China 100084  
Thermal Engineering, in the specialty of energy, power system, and automation  
Graduated 2008, Overall GPA 3.72/4.00

---

## REASERCH EXPERIENCE

**Novel Compressed Air Approach for Off-Shore Wind Energy Storage, supported by National Science Foundation (NSF)** (Aug. 2010 - Present) simulating high-efficient compressed air energy storage (CAES) processing enhanced by spray injection for large off-shore wind systems, using computational fluid dynamic (CFD) codes

**Ultralight Technologies for Off-Shore Wind Cost-Of-Energy Savings, supported by Dominion Virginia Power, based in Richmond, Virginia** (Mar. 2013 - Present) based on aerodynamic, thermodynamic, and structural analysis, studying approaches to reducing costs of manufacture, transportation, operation, and maintenance for state-of-art off-shore wind turbines and wind farm off U.S. Atlantic coast

**Ultralight Pre-Aligned Rotor for Off-shore Wind, supported by National Renewable Energy Laboratory (NREL)** (Jan. 2014 - Present) producing a new down-wind blade design for extreme-scale off-shore wind turbines with substantially lower cost

**Student Researching Training (SRT) Program, supported by Tsinghua University** (Mar. 2007 - Jan. 2008) building up an acoustic and thermal measurement system in a test rig of gas turbine combustion

**Post-Doc Researcher**, University of Virginia (Jun. 2014 - Present)

**Research Assistant**, University of Virginia (Jan. 2010 - May. 2014)

**Teaching Assistant**, University of Virginia (Jan. 2010 - Jul. 2012)

---

## AWARD

**Graduate Student Fellowship** (Aug. 2009 & Aug. 2013) University of Virginia

**Excellent Graduate Thesis** (Jun. 2008) Tsinghua Gas Turbine Research Center

**Scholarship for Outstanding Student** (Oct. 2007 & Sep. 2006) Tsinghua University

**Third Prize** (Apr. 2006) Tsinghua Energy and Power Design Competition

**Excellent Volunteer** (May. 2005) Tsinghua University

**Bronze** (Aug. 2003) 18<sup>th</sup> China Adolescent Science & Technology Innovation Contest

---

## SKILLS

**Programming:** Fortran, MATLAB, VBA, VC    **Additional:** LabVIEW, UNIX, MS Office  
**Modeling & Simulation:** ANSYS, FLUENT, Gridgen, Tecplot, SolidWorks