

Jianxi Zhu

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Objective:

Serve the industry as an excellent mechanical engineer

Education:

2004 - present North Carolina State University, Raleigh, NC

Ph.D, Mechanical & Aerospace Engineering

- Research in numerical simulating of force convection in Newtonian and non-Newtonian flow with microwave heating

2001 - 2003 The University of Toledo, Toledo, OH

M.S., Mechanical & Industrial Manufacturing Engineering

- Research in computational and experimental investigation of flow inside human lung
- Thesis, "*Steady Flow in Symmetric Bronchial Bifurcation Models*"

1997 - 2001 Xi'an Jiaotong University, Xi'an, P. R. China

B.E., Automotive Engineering

- Research in emission control of diesel engine with new type of fuel
- Thesis, "*Experimental Investigation on the Reduction of Harmful Emissions from Diesel Engines by Using Electrostatic Plasma Technology*"

Work Experience:

2003 – 2003 Research Associate (part-time employee)

Dept. of Medicine, Medical College of Ohio

- Work on theoretical analysis of influence of structure on flow patterns inside human airway system

2002 – 2003 Research Assistant

Dept. of M.I.M.E., The University of Toledo

- Work on laser diagnosis of laminar flow inside the human bronchial models

2000 – 2001 Lab Assistant

Dept. of Automotive Engineering, Xian Jiaotong University, P.R.China

- Work on measurement and diagnosis of emissions of IC-engines, and calculating of heat release rates of engines

Summer 2000 Internship in Shanghai Diesel Engine Co., Ltd., P.R.China

Skills:

- Professional on numerical simulation of heat transfer and fluid mechanics
- Skillful with computer programming in FORTRAN, C++, VB
- Professional on experimental operation in laser diagnostic including the equipments set-up and operation of PIV and LDV
- Familiar with measurement and diagnosis of engine's emission, and relevant after-treatment techniques
- Familiar with relevant engineering software including Solidwork, Ansys, Labview, Matlab, Tecplot, AutoCAD, Origin, ProE, Microsoft Office...