Weiyang Tong

Applicant is a PhD candidate of Mechanical and Aerospace Engineering with expertise in Multidiscipline Design Optimization, Optimization Algorithms, and Data Analysis. Strong analytical skills | Solid coding ability | Team player, self-starter, and quick learner

Starkville, MS
leonardotong@gmail.com - 3153956674

WORK EXPERIENCE

Research Associate I

Mississippi State University - Starkville, MS - September 2013 to Present

Responsibilities

• Research on multidisciplinary design optimization, multiobjective optimization algorithms, complex engineering systems, sensitivity/uncertainty analysis, wind farm design and modeling, product family concepts in UAV designs, machine learning, electrical vehicles charging stations, and building energy systems.
• Assist in preparing NSF grant proposals and reports.
• Assist in editing practical optimization book.

Skills Used

optimization algorithms (LP, CP, PSO, GA, etc), sensitivity/uncertainty analysis, meta-modeling, data mining, machine learning, C++, Tecplot, Matlab, R, Python, and Latex

Graduate Assistant

Syracuse University - Syracuse, NY - September 2011 to August 2013

Responsibilities

• Research on multidisciplinary design optimization, multiobjective optimization algorithms, complex engineering systems, wake modeling, wind farm design and modeling, product family concepts in UAV designs, data mining, machine learning, and building environments.
• Assisted in preparing NSF grant proposals and reports.
• Assisted in teaching Practical Optimization with Matlab (undergraduate/graduate levels), senior design (mechanical/aerospace engineering students), and operated prototype printer and laser cutter machine.

Skills Used

optimization algorithms (LP, CP, PSO, GA, etc), sensitivity/uncertainty analysis, meta-modeling, data mining, machine learning, C++, Tecplot, Matlab, R, Python, Latex, AutoCAD, Solidworks, Maple, MiniTab, Fortran, Fluent (Ansys), operating laser cutting machine and prototype 3D printer.

Research Assistant

Beihang University - 北京市 - September 2006 to January 2009

Responsibilities

• Research on Lattice Boltzmann Method, numerical simulations, numerical methods, and software development
• Assisted in translating text book on LBM

Skills Used

Numerical simulations, Numerical methods, CFD, LBM, C/C++, and Matlab

Project Manager Assistant

China National Chemical Construction Corporation - 北京市 - September 2005 to August 2006

Responsibilities

• Assisted in preparing/organizing the 3rd World Maintenance Congress, the 1st World Fertilizer Conference, and ACHEMA2006 World Forum
• Coordinated with organizers and clients
• Assisted in visa service and oversea training

Assistant Technician

The 6th Academy of China Aerospace Science and Industry Corporation - Hohhot, Inner Mongolia, China - June 2004 to August 2005

Responsibilities

• Assisted in validating the structure intensity of engine shells
• Studied the assembly processes of solid rocket engines

EDUCATION

PhD candidate in Mechanical and Aerospace Engineering

Syracuse University - Syracuse, NY
2011 to 2015

MS in Mechanical and Aerospace Engineering

Syracuse University - Syracuse, NY
2010 to 2011

MS in Aerospace Propulsion Theory and Engineering

Beihang University - 北京市
2006 to 2009

BEng in Aerospace Power Engineering

Beihang University - 北京市
2001 to 2005

SKILLS

Multi-disciplinary Design Optimization, Optimization algorithms (LP, CP, mixed-integer, GA, PSO, etc), wind farm design and optimization, complex engineering systems, CFD, LBM, Data mining, Learning algorithms (SVM, RF, k-means, etc), Sensitivity/Uncertainty analysis, Data analysis; Programing & Software: C/C++, Matlab, Tecplot, Latex, R, Python, Java, AutoCAD, Weka, Fluent, and MiniTab.

LINKS

https://sites.google.com/site/weiyangtong/

https://www.linkedin.com/in/weiyangtong

GROUPS

American Institute of Aeronautics and Astronautics (AIAA)

American Society of Mechanical Engineers (ASME)

International Society for Structural and Multidisciplinary Optimisation (ISSMO)