Shara Akbar

8808 Palo Verde Rd. Irvine, CA 92617 Phone: (949) 222-6666, Email: sakbar@gmail.com

PROFILE

- ➢ 5 years experience in Mechanical Engineering, strong experimental and computational background.
- ➢ Hands-on experience, experiment design and implementation. Excellent experimental fluid dynamics skills, instrumentation, imaging, and data acquisition by MATLAB and LabVIEW.
- ➢ Experienced in CAD, geometry modeling and drafting using AUTOCAD and SolidWorks.
- ➢ Thermal and fluid flow analysis using Computational Fluid Dynamics (CFD) and FEA/FEM tools: FORTRAN, ANSYS, GAMBIT and ICEM/Fluent.
- ➢ Experienced in control systems design and system identification by MATLAB/Simulink.
- ➢ Strong writing and oral communication skills. Published peer reviewed articles, and gave presentations in different professional conferences.

EDUCATION

University of California, Irvine

Ph.D., Mechanical and Aerospace Engineering,   August 20XX
M.Sc., Mechanical and Aerospace Engineering,   June 20XX

Sharif University of Technology, Tehran, Iran

B.Sc., Mechanical and Aerospace Engineering,   June 20XX

PROFESSIONAL WORK AND RESEARCH EXPERIENCE

University of California, Irvine

Researcher

Laser, Flames, and Aerosols lab, Mechanical and Aerospace Engineering   Sep. 20XX – Present

- ➢ Developed programming and computational skills by modeling external flows and studying liquid-gas interface through CFD tools and MATLAB
- ➢ Lead team in multiple collaborations and mentored undergraduate students
- ➢ Authored grant reports to support projects. Developed fund management and project management skills by creating timeline for project completion and meeting deadlines
- ➢ Results published in 2 journal articles and presented in 7 professional conferences (available upon request)

MEMS lab, Mechanical and Aerospace Engineering   Jan. 20XX– Sep. 20XX
- ➢ Achieved expertise in FEA/FEAM analysis by using ANSYS tools to perform a thermal-stress simulation of an array of carbon columns on substrate exposed to sudden temperature change across the entire system.
- ➢ 4-month clean-room training in microfabrication. Collaborated on project with Carbon Micro Battery Corporation.

S. Akbar (949) 222-6666, Email: sakbar@gmail.com

Instructor

Mechanical and Aerospace Engineering Department   Spring 20XX
  - Organized combined in-person/online course in Computer Aided Design (CAD)and SolidWorks, offered for the first time as a hybrid course at UCI.
  - Developed communication skills by lecturing and presenting complex concepts to students (165 undergraduate students per class).
  - Developed leadership and time management skills. Coordinated activities with other teachers and collaborated on online system management with other organizations at UCI.
  - Received excellent evaluations from students.

Teaching Assistant

Thermodynamics   Summer 20XX
Computer Aided Design (CAD)   Spring 20XX- Spring 20XX

Namvaran Petroleum Consulting Company, Tehran, Iran

Mechanical Engineer   Summer 20XX

Summer Intern
  - CAD modeling and geometry modeling training using AUTOCAD.
  - Project management and team-work training, worked productively in a team under pressure to meet project deadlines.

TECHNICAL SKILLS

Computer/software

CAD tools: SolidWorks, AutoCAD; CFD tools: GAMBIT and ICEM/Fluent, Tecplot; FEA/FEA tools: ANSYS

Programming: C++, Matlab/Simulink, Mathematica, LabVIEW, Fortran

Other software packages: MSC ADAMS, Mechanical Desktop, Working Model, Microsoft Word, PowerPoint, Excel

Experimental Testing

Design and construction of experimental setup, data acquisition and data analysis with LabVIEW and MATLAB, instrumentation, imaging, image processing with MATLAB, frequency and vibration measurement by Laser Doppler Vibrometer (LDV).

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