RESUME EXAMPLE:

GOLDY GOPHER

1234 Gopher Way, Minneapolis, MN 55414
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SUMMARY OF QUALIFICATIONS

- Pursuing a Master of Science in Mechanical Engineering
- Obtained industry experience through internship at Boeing and collaborated on a project with BASF
- Proficient in aerosol/nanoparticle synthesis, sampling, measurements and instrumentation
- Experience in air filtration, cleanroom technology, engine emission, and flow measurement/CFD
- Knowledgeable about thermal-fluid problems, aerosol physics, and mechanical design

EDUCATION

Master of Science in Mechanical Engineering Expected Graduation May 2015
University of Minnesota-Twin Cities, Minneapolis, MN
College of Science and Engineering
Department of Mechanical Engineering
Cumulative GPA: 3.87

Bachelor of Engineering in Mechanical Engineering May 2013
University of Wisconsin-Madison, Madison, WI
College of Engineering
Cumulative GPA: 3.76

RELATED INDUSTRY EXPERIENCE

Intern Summer 2014
Boom Inc., Seattle, WA

- Conducted systematic measurement for flow fields in a smoke test chamber at different heating and ventilation conditions, using Particle Image Velocimetry
- Helped validate CFD simulation results for smoke generation and transport in commercial airplane cabins
- Streamlined a key product characterization procedure, improving reproducibility and turn-around time for manufacturing
- Designed and implemented comparative studies of various standard operating procedures in order to detect areas of improvements
- Collaborated with a multi-disciplinary team of software engineers, electrical engineers, and aerospace engineers
- Interacted with customers, partners, subcontractors and suppliers
- Presented findings and recommendations of project areas that could be developed to the internship coordinator and colleagues

SKILLS

Particle Generation: Nebulizer, Tube Furnace, Fluidized Bed, Diffusion Burner, Electrospray
Laboratory Instruments: Electron Microscopy (TEM, SEM, EDX), Differential Mobility Analyzer, Condensation Particle Counter, Nanoparticle Surface Area Monitor, Nanometer Aerosol Sampler, Aerodynamic Particle Sizer, Optical Particle Counter, Liquid Particle Counters
Programs: LabVIEW, Matlab, ANSYS, Fluent, AutoCAD, Pro/ENGINEER, SolidWorks, ImageJ, Macromedia
Computer Languages: C/C++, Fortran, HTML, JavaScript

PROJECT EXPERIENCE

Developing Pulsed Aerosol Loading System, Center for Filtration Research (CFR) Spring Semester 2014

- Designed and built the control hardware and program of an experimental system for pulsed aerosol loading tests on filter media

Upgrading Control Software of UNPA, BASF Company Fall Semester 2013

- Improved the LabVIEW control software of Universal Nanoparticle Analyzer (UNPA); added new functions, such as particle diffusion loss correction; enhanced program user interface and debugged code errors

RESEARCH EXPERIENCE

Graduate Research Assistant September 2013–present

Particle Technology Lab, College of Science and Engineering, University of Minnesota-Twin Cities, Minneapolis, MN

- Collaborate with area companies through the Center for Filtration Research (CFR) to study mass loading and pressure drop on Nanofiber filters
- Perform experimental and theoretical studies on the filtration of fractal aggregates
- Measure penetration of silver aggregates across model screens at various sintering temperatures
- Develop an analytical model for predicting effects of particle structure on filter efficiency
- Continue NSF funded research on real-time structure and mass measurements for agglomerated nanoparticles
- Evaluate in situ the particulate mass concentration of diesel engine emissions using a variety of instrumentation and methods
- Apply the Universal Nanoparticle Analyzer (UNPA) to investigate effects of sintering on morphology of metallic nanoparticle agglomerates formed by spark discharge
- Develop new modules for and maintained a web-based software on filter performance evaluation, dust cake loading and filter pleating design
- Conduct numerical study on diffusion-limited aggregation of nanoparticles in laminar shear to find the relation between velocity gradient and aggregate fractal dimension

SELECTED PUBLICATIONS & PRESENTATIONS

Journals

- G., Gopher, L. Yang, A.B. Duggard, H. Aleckson (2012). Measurement of Metal Nanoparticle Agglomerates Generated by Spark Discharge using the Universal Nanoparticle Analyzer (UNPA). *Aerosol Sci. & Technol.*, Accepted

Conferences

- Presentation, Effect of Nanofiber Layer on Dust Cake Formation and Structure. XXth *AAAR Annual Conference*, Minneapolis, MN, Oct 26-30, 2013
- Presentation, Online Measurements of Structure and Mass Concentration for Airborne Nanoparticle Agglomerates. *AIChE 2012 Annual Meeting*, Minneapolis, MN, Dec 10-14, 2013

PROFESSIONAL AFFILIATIONS

Member of American Institute of Chemical Engineers 2013–present
Member of American Association for Aerosol Research 2011–present
Member of American Filtration & Separations Society 2011–present