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Professional Experience

- **Research Engineer**, Argonne National Laboratory, Center for Transportation Research,
  - Energy Systems Division, Vehicle Systems and Fuels group, Chicago, IL, USA
  - 2009-present, Principal Mechanical Engineer, Advanced Powertrain Research Facility,
  - 2006-present, Principal Investigator, Modular Automotive Technology Testbed project
  - 2004-2009, Hardware-In-the-Loop engineer
  - 2004-2009, Research Engineer, Advanced Powertrain Research Facility, Hybrid vehicle testing with an expertise in hydrogen vehicle testing
  - 2005-2008, Principal Investigator , Hydrogen test cell expansion and multi cylinder engine calibration
- **Graduate Research Assistant** for Dr. D.J. Nelson, Virginia Tech
  - Fall 2001 Fuel Cell modeling funded by National Renewable Energy Laboratory (NREL)
  - Fall 2002 Cooling of power electronics funded by Virginia Power Technologies (VPT)
- **Graduate Teaching Assistant** for Dr. D.J. Nelson ,Virginia Tech
  - Fall 2003 ME 4015: Engineering Design and Projects (Fall 2003)
- **Hybrid Electric Vehicle Team of Virginia Tech, HEVT,** www.hevt.me.vt.edu, www.futuretruck.org,
  - FutureTruck 2001, Fuel Cell Hybrid Vehicle Control group leader, Senior Design
  - FutureTruck 2002, Fuel Cell Hybrid Team leader assistant, Volunteer
  - FutureTruck 2003, H2ICE Hybrid Team leader, Volunteer
  - FutureTruck 2004, H2ICE Hybrid Team leader, Graduate Teaching Assistant

Education

- **PhD, Mechanical Engineering,** Virginia Tech, 2009, Advisor Professor Douglas J. Nelson, Dissertation: "Development and Applications of the Modular Automotive Technology Testbed (MATT) to Evaluate Hybrid Electric Powertrain Components and Energy Management Strategies", defense date 9/11/2009
- **Master of Science, Mechanical Engineering,** Virginia Tech, 2004, GPA: 3.85/4.0, Advisor Professor Douglas J. Nelson, Thesis: "Thermal overload capability of an electric motor and inverter units through modeling"
- **Bachelor of Science, Mechanical Engineering,** Virginia Tech, 2001, GPA 3.83/4.0, "*Summa cum Laude*"
  - Fall 1999, Virginia Polytechnic Institute and State University, Blacksburg, VA, USA
  - Spring 1998, Euro-American Institute of Technology, Sophia Antipolis, France
  - Fall 1997, Clarkson University, Potsdam, NY, USA
- **Baccalauréat Scientifique, spécialité Mathématique, option Informatique,** Summer 1997, Munster, France

Awards

- **College of Engineering, Deans List,** Fall 1999, Spring 2000 and Fall 2000
- **IR Student Award,** Mechanical Engineering, 2001
- **Pratt Fellowship,** Mechanical Engineering, 2001-2002
- **ANL Pace Setter award,** BMW Hydrogen 7 testing, 2008
- **ANL Pace Setter award,** PHEV emissions mitigation with INL, 2009
- **ANL feature news article:** MATT work featured by Argonne, 2009

Languages

- **German:** first native language
- **French:** second native language
- **English:** fluently spoken and written

Professional Society Affiliations

- Society of Automotive Engineers (SAE),
- American Society of Mechanical Engineers (ASME)
- National Mechanical Engineering Honor Society (Pi Tau Sigma)
- National Engineering Honor Society (Tau Beta Pi)
- Honor Society for International Scholars (Phi Beta Delta)

Skills

- **Testing:** Engine and vehicle chassis dynamometer testing expert (including instrumentation)
- **Analysis:** Data reduction, analysis, deducing trends and presentation
- **Computer Skills:** Microsoft Office (Word, Excel, Project, Visio),Matlab, Labview, dSpace

Trainings & Publications

Available upon request.