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Professional Experience

- **2006-Present.** Software Engineer in the Center for Transportation Research, Energy Systems Division, Argonne National Laboratory
 - Worked as main user interface programmer on the Powertrain Systems Analysis Toolkit (PSAT) to design, code, test and maintain state-of-the-art software used by over 300 users including the Department of Energy, the major automakers and their suppliers, and U.S. and international universities to simulate advanced vehicle configurations
 - Worked with General Motors to implement a global vehicle modeling standard and redesigned and re-implemented PSAT software to support it
 - Created guidelines for and implemented software lifecycle best practices such as piracy protection, simulation result tracking over time and configuration management
 - Wrote and maintained internal engineering tools for ad-hoc tasks, such as supporting releases, source control reports and automatic documentation generation
 - Created a new C-sharp, graphical user interface (GUI), extensible markup language database and equation system for the Greenhouse Gasses, Regulated Emissions, and Energy Use in Transportation (GREET) application to port the existing application which had outgrown its original implementation in Excel
- **2002-2006.** GUI Team Lead, Lockheed Martin, Integrated Systems and Solutions; Valley Forge, Pennsylvania
 - Cleared for Sensitive Compartmented Information access
 - Supervised a team of 3 to 5 individuals in the completion of GUI and middleware related tasks
 - GUI baseline consisted of approximately 20,000 lines of code
 - Created schedules and insured that all milestones were met on time
 - Gave demos to potential stakeholders as well as demonstrated new capabilities after spiral releases
 - Acted as the point of contact for all GUI commercial, off-the-shelf vendors
 - Provided support to stakeholders including weekly meetings and forum discussions as well as on-site support

- Supported code through all phases of the software development lifecycle, including design, development, test and maintenance
- **2000-2002.** Software Verification Engineer at Delphi Automotive Systems; West Lafayette, Indiana
 - Verified and supervised others in the verification of C++ and C code against specific coding standards
 - Designed and implemented engineering software using Visual C++ on a Windows platform and C on a Sun workstation

Education

- Master of Software Engineering, Pennsylvania State University, 2005
- BS, Purdue University, 2002

Awards

- Lockheed Martin
 - Individual Excellence Award (2005)
 - Team Accomplishment Award (2004)
 - Wingspread Award (2003)

Professional Society Affiliations

- Member of Society of Automotive Engineers