

William R. Haslett

Experience / Skills

- Ten years of R&D engineering experience in computer simulation, development of software models and electronic and mechanical design.
- Project management including analysis, design, process engineering.
- Coding experience in Java (Eclipse), C (Codewarrior), VB and HTML.
- Experienced with Windows, Mac, Unix (X-Windows, command line) and Linux operating systems.
- Numerical modeling and optimization in the thermal, fluid, structural, and kinematic / dynamic domains. (Ansys, Star-CD, Nastran / Patran, Adams)

Education

2003 – Present *Dartmouth College*, Hanover, NH

Masters of Arts in Electro-Acoustic Music, expected June 2005

Currently a second year graduate student focusing on hardware and software development for new electronic musical instruments.

1989 – 1993 *Kettering University*, Flint, Mi

Bachelor of Science in Mechanical Engineering, 1993

Five year mechanical engineering program with an undergraduate thesis on the simulation of air flow dynamics in gasoline engines.

Professional Experience

2000 – 2003 *Spectra Inc.*, Hanover, NH and Santa Clara, CA.

Research and Development / Process Engineer

- Lead process engineer for the successful launch of a new class of products requiring part and tooling design, setup and coordination of a pilot assembly facility, and oversight of experimental builds
- Development engineer for a new MEMS device requiring new design, process and test development as well as new facility start-up. Part of a small intense team working through prototype iterations.
- Concept development and computer modeling responsibilities for a new fluid delivery product with previously unattained performance specifications.

1993 – 2000 *General Motors / Delphi Automotive Systems*, Rochester, NY.

Research and Development Engineer

- Led the mathematical aspects of prototype iterations for a variable valvetrain mechanism. Responsibilities / accomplishments included:
 - The development of a software environment for the simulation and optimization of the mechanism (determined system geometry based on predicted loads and a cost function incorporating a number of design goals).
 - Procurement and test of prototype systems including high speed bench testing and vehicle testing
 - Modeling and optimization of component details using the results of kinematic / dynamic models as inputs to structural FEA models. Other modeling responsibilities included bearing performance, transient thermal models and life prediction.
 - Developed a unique valvetrain concept based on a barrel cam linkage. Performed quick up-front solid modeling for the evaluation of this and other concepts.
 - Two US patents awarded for designs created during this project.

- Fuel system development engineer for a novel system incorporating flexible fuel lines and a central injector
 - Designed and performed hardware evaluations of various concepts for a small fuel delivery nozzle.
 - Modeled the performance of various diaphragm designs under various constraint conditions to optimize nozzle design.
 - Wrote software to automatically parse and summarize large amounts of test data from a running engine.

1989 – 1993 *General Motors / Delphi Automotive Systems*, Rochester, NY.

Cooperative Engineer

- Gained experience with many aspects of an engineering business through three month assignments in product engineering, manufacturing, purchasing, marketing, development, test, and analysis.