

Kevin R. Chasse

Current Address:

310 6th St. NE Apt 1
Atlanta, GA 30308

Contact Information:

Cell Phone: 860-796-9474
E-mail: kevin.chasse@mse.gatech.edu.com

OBJECTIVE I am seeking an internship or co-op experience that will allow me to develop my technical skills in corrosion research.

EDUCATION **Georgia Institute of Technology, Atlanta GA**
Doctor of Philosophy candidate, Materials Science and Engineering, May 2007 – present

Brown University, Providence, RI
Master of Science, Engineering, May 2004

Worcester Polytechnic Institute, Worcester, MA
*Bachelor of Science * with Distinction, Mechanical Engineering, May 2002*
Overall GPA 3.4, Major GPA 3.8

WORK EXPERIENCE

2005 – 2007 **Electric Boat Corporation, Groton, CT: Mechanical Engineer** Provided system-level support for the design, construction, and lifecycle of the weapons handling and shipping equipment on VIRGINIA Class nuclear submarines. Ensured that the design, procurement, fabrication, installation, testing, and operation of the equipment were successful. Performed engineering calculations to verify that the strength, material selection, and manufacturability of the existing design were technically acceptable. Reported emerging technical issues and the respective problem resolutions to the customer. Prepared mechanical engineering reports for non-conforming hardware. Trained the submarine crew to use and service the equipment. This position required a *DoD Secret clearance*.

2004 – 2005 **Intel Corporation, Chandler, AZ: Packaging Engineer** Responsible for testing laptop, desktop, and mobile electronic packages in a mechanical lab and for overseeing the work of several technicians. Designed experiments to validate finite element models. Performed data analysis and communicated the results to internal customers. Developed new testing metrologies and documented the procedures for these metrologies. Responsible for coordinating the service, repair, and calibration of the lab equipment. Allocated the workload for technicians in the lab.

PROJECTS

“Mechanisms of Stress Corrosion Cracking in Duplex Stainless Steels used in Caustic Solutions,” Atlanta, GA: Investigated the underlying electrochemical and mechanical effects that give rise to crack initiation and propagation due to SCC in several grades of DSS used in the sulfide-containing, caustic solutions of the Pulp and Paper Industry. This research endeavor will provide critical data to identify the optimal solution chemistry, process parameters, and material properties to mitigate the risk of SCC in these aggressive environments.

“The Effects of Low Temperature Aging on Uranium-Niobium 6 wt% Mechanical Properties,” Providence, RI and Livermore, CA: Characterized the atomic strengthening mechanisms of spinodal decomposition and antiphase domains in the Uranium-Niobium system using a Transmission Electron Microscope (TEM) for Lawrence Livermore National Lab’s Stockpile Stewardship Program.

“The Kinetics of Bead Collapse in Expanded Polystyrene,” Worcester, MA: Performed experiments to determine the activation energy and kinetic transformations that occur during bead collapse in the process of “lost foam casting.” These data were used to select additives that minimized defect formation during solidification of the casting. *Provost Award Honorable Mention*

COURSES

Physical Metallurgy, Thermodynamics of Materials, Crystallography, Kinetics of Materials, Non-Metallic Materials, Electrical Properties of Materials, Microstructure Analysis, X-ray Diffraction, Aqueous Corrosion, High-Temperature Oxidation, Computational Techniques in Materials Science

SKILLS

Material Characterization: Optical Microscopy, Scanning Electron Transmission (SEM) Transmission Electron Microscopy (TEM), X-ray Powder Diffraction (XRD)

Mechanical Testing: Tensile, Fatigue, and Torsion Testing, Slow Strain Rate Testing (SSRT), Microhardness Testing, Nanoindentation, Strain Gages, Extensometers

Corrosion Testing: Polarization Techniques, Hydrogen Permeation and Transport Testing

Software Packages: ABAQUS, C++, *Maple*, *MathCAD*, *AutoCAD*, *VISIO*, *JMP*, *PC Bolts*, *Teststar*, *LabView*, *Microsoft Excel*, *Microsoft Word*, and *PowerPoint*

Other: Sample Preparation and Standard Lab Practices, Repair and Maintenance of Mechanical Equipment, Soldering, Nondestructive Testing (NDT)