

# DAVID A. HOOPER

## PERSONAL DATA

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PLACE AND DATE OF BIRTH: Billings, Montana | 08 October 1976  
ADDRESS: 1363 Shepard St, Knoxville, TN 37917  
PHONE: 307-262-9841  
EMAIL: [david.a.hooper@gmail.com](mailto:david.a.hooper@gmail.com)

## WORK EXPERIENCE

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- OCT 2012 - CURRENT | Staff Scientist at OAK RIDGE NATIONAL LABORATORY  
Oak Ridge, TN  
*Nuclear Forensics Modeling and Analysis*  
See "Notable Projects" below.
- OCT 2011 - SEP 2012 | Postdoctorate at OAK RIDGE NATIONAL LABORATORY  
Oak Ridge, TN  
*Nuclear Forensics Modeling and Analysis*  
Developed models for actinide fractionation and particle attachment for post-nuclear detonation fallout modeling.
- OCT 2005 - AUG 2006 | Drafter at EPIC ENGINEERING  
Charleston, South Carolina  
*Mechanical drafting for HVAC and plumbing designs for buildings*  
Drafted AutoCAD designs for commercial building mechanical systems.
- SEP 2001 - SEP 2005 | Active Duty Navy Officer  
*Instructor at the Nuclear Power School*  
Taught courses relevant to Navy nuclear propulsion in math, physics, chemistry, metallurgy, and radiology to enlisted and officer students.  
Class Director for roughly 50 junior officers, 2 Captains, and 5 civilians.  
Honorable Discharge as a Lieutenant

## INTERNSHIPS

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- AUG 2011 - OCT 2011 | at OAK RIDGE NATIONAL LABORATORY  
Oak Ridge, TN  
*Transitional employment between PhD graduation and start of post-doctoral work.*
- MAY 2010 - AUG 2010 | at OAK RIDGE NATIONAL LABORATORY  
Oak Ridge, TN  
*Maintained and operated the Mock Feed and Withdrawal Facility to generate data for development of enrichment monitoring methodologies.*
- MAY 2008 - DEC 2008 | at OAK RIDGE NATIONAL LABORATORY  
Oak Ridge, TN  
*Updated the DELFIC fallout modeling code to compliance with ENDF-B/VII standards.*

## EDUCATION

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AUGUST 2011	PhD in NUCLEAR ENGINEERING, <b>University of Tennessee</b> , Knoxville, TN Dissertation: “Development of a Prognostic Method for the Production of Undeclared Enriched Uranium” Advisor: Dr. J Wesley HINES
AUGUST 2011	MS in STATISTICS, <b>University of Tennessee</b> , Knoxville, TN Companion degree earned in conjunction with PhD Statistics Advisor: Dr. Hamparsum BOZDOGAN
AUGUST 2008	MS in NUCLEAR ENGINEERING, <b>University of Tennessee</b> , Knoxville, TN Thesis: “Cavitation of Mercury in a Centrifugal Pump” Advisor: Dr. Art RUGGLES
MAY 2001	BS in MECHANICAL ENGINEERING, <b>University of Wyoming</b> , Laramie, WY

## COMPUTER SKILLS

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Proficient Languages: FORTRAN, R, BASH,  $\LaTeX$ , SLURM  
Intermediate Languages: C, PYTHON  
Proficient Architectures: WINDOWS, MACOS, LINUX (incl. clusters)

## NOTABLE PROJECTS IN CURRENT POSITION

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DELFC: Lead developer for the Defense Land Fallout Interpretive Code  
: Research and develop physics for fallout formation and transport.  
: Develop integrated software toolsets for fallout prediction and analysis.

NMIP: Member of the Statistical Working Group of the Nuclear Materials  
: Information Program

NTNF: Develop software tools and participate in the working groups for the  
: National Technical Nuclear Forensics program.

## INTERESTS AND ACTIVITIES

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Nuclear: Nuclear Forensics and Consequence Management,  
Modeling and Simulation  
Statistics: Information Theory, Bayesian Inference  
Leisure: Curling, Handymanship