

Elizabeth Anne Bodine

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Education

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| M.S./PhD. Electrical Engineering est. May 2009, May 2012 NDSEG Fellowship, Atwood Fellowship | California Institute of Technology 3.6/4.0 |
| B.S. Electrical Engineering December 2006 | The University of Texas at Austin 4.00 / 4.00 |
| B.A. Plan II Honors December 2006 | The University of Texas at Austin 4.00 / 4.00 |

Related Courses

Information Theory, Stochastic Processes and Modeling, Networking, Communication Theory, Stochastic and Adaptive Signal Processing, Digital Signal Processing, Digital Video and Image Processing

Publications

Bodine, E.A., Cheng, M.K. *Characterization of Luby Transform Codes with Small Message Size for Low-Latency Decoding*. ICC '2008, Beijing, China, May 2008, pp. 1195-1199.

Industry Experience

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| Jet Propulsion Laboratory 1/07 – 9/07 | <i>Advanced Signal Processing Projects Group</i> Researched Luby-Transform codes for low-latency decoding, created prototype protocol stack and communications for Mars rover, and interpreted data from Titan wind velocity experiment using image processing techniques |
| MIT Lincoln Laboratory 6/06 – 8/06 | <i>Group 65: Advanced Networks and Applications</i> Created Joint Tactical Radio System Gateway Emulation using network programming and traffic simulation and analysis tools to jump-start LL's research efforts for JTRS |
| MIT Lincoln Laboratory 6/05 – 8/05 | <i>Group 65: Advanced Networks and Applications</i> Researched traditional policy-based network management for the global information grid and additional adaptations for the airborne network, including clustering and red/black boundary solutions |
| IBM Tivoli 5/04 – 8/04 | <i>Advanced Interoperative Solutions Group</i> Created and presented SuSE Linux & IBM Tivoli CIM Proof of Concept Demonstration at LinuxWorld San Francisco. Researched and presented Cluster Monitoring project |
| Mills Electrical Contractors 5/03 – 8/03 | Created database for keeping records of current and past projects and estimates. Updated Six Cycle CrewModel for forecasting manpower utilization on any given project. Defined Requirements Specification for a conceptual estimating application |

Academic Experience

Undergraduate Thesis
8/05 – 12/06

WSN to Monitor Social Interactions
Supervising Professors: Bill Bard, Sanjay Shakkottai
Implemented a mobile wireless sensor network using basic gossip protocols and Intel MICAz motes to perform social network research

SDR Independent Study
8/04 – 12/04

Created a FM software defined radio using National Instruments hardware and LabView

Skills

C, C++, nesC (TinyOS), Linux Socket Programming,
shell scripting, HTML, ASP
IXIA VoIP and Traffic Simulation
Cisco and Linux Networking
Microsoft Access, Word, Excel, PowerPoint, FrontPage
Strong leadership and teamwork skills

Accomplishments

Member of Phi Beta Kappa
College of Engineering Outstanding Scholar Nominee, 2006
Engineering Honors Program, 2002-2006
Raytheon, SWE, Engineering Honors Scholarships, 2002-2006
Member of SWE, IEEE, HKN, 2002-2006
Campus Opera Society Membership Director 2006

Employability Status

US Citizen