

Aaron D. Nielsen

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CAREER OBJECTIVE:

Seeking full-time employment and experience in the areas of Digital Signal Processing and Digital Communications. Available January 2009. Willing to relocate.

EDUCATION:

M.S. Electrical Engineering, *University of Colorado, Boulder, CO*

Advisor: Mahesh Varanasi

Cumulative GPA: 3.53/4.00

Completed: December 2008

B.S. Electrical Engineering, *Colorado State University, Fort Collins, CO*

Cumulative GPA: 3.55/4.00

Major GPA: 3.50/4.00

Completed: May 2007

B.S. Mathematics, *Colorado State University, Fort Collins, CO*

Major GPA: 3.89/4.00

Completed: May 2007

COMPUTER SKILLS:

Operating Systems:	• Windows (all)	• Unix	• DOS
Programming Languages:	• Java	• Perl	• C
	• VHDL	• Assembly	• HTML
Software Programs:	• Spice	• Design Architect	• LogicWorks
	• Matlab	• MathCAD	• R/S-Plus
	• Microsoft Word	• Microsoft Excel	• Adobe Photoshop

RELEVANT COURSE WORK:

- Digital Communications
- Analog Communications
- Wireless Communications
- Digital Signal Processing
- Information Theory
- Error Control Coding
- Control Systems/Digital Controls
- Applied Network Security
- Digital System Design
- Analog IC Design
- Circuit Theory
- Cryptography

WORK EXPERIENCE:

Graduate Research Assistant, University of Colorado at Boulder

Supervisor: Dr. Mahesh Varanasi

Boulder, CO

August 2007 – June 2008

(303) 492-0258

- Read, analyze, and critique current research dealing with the use of Algebraic Number Theory in MIMO Communication Systems
- Propose and initiate future research on the subject

Electrical Engineering Intern, Institute for Telecommunication Sciences

Supervisor: Dr. Robert Stafford

Boulder, CO

May 2007 - August 2007

(303) 489-7835

- Collect and interpret data from RSA3408A, Spectrum Analyzer
- Resolve Matlab collection program errors
- Process data in Matlab in time and frequency domains
- Design Matlab GUI to display processed data

WORK EXPERIENCE (CONT):

Project lead, CSU Senior Design Project
Supervisor: Dr. V Chandrasekar

Fort Collins, CO
August 2006 – May 2008
(970) 491-7981

- Study basic radar principles including specific problems
- Implement different methods of phase coding in Matlab
- Analyze data from weather radar using these algorithms
- Give weekly Powerpoint presentations on project progress

Student Intern, UV-B Research Program
Supervisor: Dr. Jim Slusser

Fort Collins, CO
May 2006 - August 2006
(970) 491-3623

- Test MFRSR units using direct sunlight and artificial light sources
- Troubleshoot malfunctioning interference filter photodiode circuits
- Research future implementations of MFRSR circuit
- Implement circuit designs in ExpressPCB

Product Specialist, Circuit City
Supervisor: Scott Dickey

Fort Collins, CO
May 2001 - July 2004
(970) 223-0034

- Customer service and cashiering
- Team-related activities
- Communication skills

HONORS/ACTIVITIES:

- Ph.D. GAANN Fellowship 2007 – 2008
- IEEE Student Membership 2004 – 2007
- Tau Beta Pi, Engineering Honor Society 2004 – 2007
- Eta Kappa Nu, Electrical Engineering Honor Society 2004 – 2007
- Circuit Theory Teaching Assistant Spring 2007
- Electrical Engineering Tutor Fall 2005
- Chemistry 1 & 2 Tutor Spring 2004
- Claude W. Wood Scholarship 2002 – 2006
- Colorado Distinguished Scholar 2002 – 2006
- CSU Amnesty International 2002 – 2004
- High School Class Valedictorian May 2002
- *Multimedia Mania*, 1st place high school division June 1999
- *Multimedia Mania*, 1st place middle school division June 1998

LANGUAGE SKILLS:

- English (Native)
- Spanish (Basic)
- Danish (Basic)

ADDITIONAL REFERENCES:

Dr. Anton Betten, Associate Professor, *Colorado State University*

(970) 491-1865
betten@math.colostate.edu

Olivera Notaros, Adjunct Faculty, *Colorado State University*

(970) 491-4629
olivera@enr.colostate.edu

Dr. Youjian (Eugene) Liu, Assistant Professor, *University of Colorado*

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