Ryan R. Curtin

1050 Hemphill Avenue, Atlanta, GA 30318
(443) 534-0378

OBJECTIVE

An engaging research internship in fields relating to machine learning, digital signal processing, algorithm development, or similar.

EDUCATION

Ph.D. in Electrical and Computer Engineering
Georgia Institute of Technology, anticipated approx. 2013
Concentration in Digital Signal Processing, Minor in Computer Science / Math
Advisors: Dr. David V. Anderson, Dr. Alex Gray

Masters of Science in Electrical and Computer Engineering
Georgia Institute of Technology, May 2009
Concentration in Digital Signal Processing, Minor in Computer Science

Bachelor of Science with Highest Honors in Electrical Engineering
Georgia Institute of Technology, May 2008

EXPERIENCE

Graduate Research Assistant   Fall 2009 - present
FASTLAB (http://www.fast-lab.org), advisor Dr. Alex Gray
Georgia Institute of Technology, Atlanta, GA

- Lead developer for FASTLIB/MLPACK; a scalable C++ machine learning library
- Oversaw, managed, and orchestrated FASTLIB overhaul, aiming for ease of use while maintaining extreme scalability
- Some research interests: dimensionality reduction; NMF and variants, manifold learning, and similar

Graduate Research Assistant   Fall 2009 - present
Cooperative Analog and Digital Signal Processing Group
(http://cadsp.ece.gatech.edu), advisor Dr. David V. Anderson
Georgia Institute of Technology, Atlanta, GA

- Applied machine learning methods to signal processing problems (ex.: using machine learning techniques on audio recordings of chickens in industry grow-out houses to classify the stress levels of chickens)
- Developed and implemented algorithms for fast machine learning methods
- Some research interests: speech (or sound) enhancement or transformation; reduction of musical noise and other artifacts; music analysis and probabilistic generation of music; improving signal processing techniques with the use of machine learning techniques

Graduate Research Assistant   Spring 2009 - Fall 2009
Georgia Tech Research Institute, ELSYS Lab

- Investigated new, cutting edge design techniques for passive radar warning receivers
- Implemented, tested, and verified radar warning receiver designs

SKILLS

Extensive knowledge of Linux and related UNIX-like systems (as well as Windows)
Extremely comfortable with C and C++ as well as a plethora of other languages and design paradigms
Proficient at circuit design and physical implementation (applying theory to real life situations)

HONORS AND AWARDS

Dean's List: Fall 2005 - present
Bert Gruders ECE Scholarship Recipient: Spring 2008

EXTRA-CURRICULAR ACTIVITIES

President, Linux Users Group at Georgia Tech
Treasurer, Eta Kappa Nu, Beta Mu Chapter
Georgia Tech Bands: Jazz Band, Pep Band, Hockey Band
Georgia Sprint Karting Association member