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Aritra Biswas

Education	2011-2015 University of Wisconsin-Madison, WI <ul style="list-style-type: none">• B.S. Computer Engineering, Mathematics and Computer Science (Overall GPA – 3.543)• PhD Computer Science (<i>Starting Fall 2015, Advisor: Robert Nowak</i>)• Expected PhD Graduation date (<i>Fall 2020/2021</i>)
Educational Projects	<ul style="list-style-type: none">• Used Huffman codes to perform data compression on Presidential speeches as a project for CS 577-Algorithms (<i>Spring 2013</i>).• Made a basic android application, which works as a linear algebra calculator by solving basic matrix functions like determinants, multiplications, inverse etc. (<i>Summer 2013</i>).• Programmed Arm Cortex M-3 microcontroller and peripherals like GPIO ports, UARTS, SPI and timers. (<i>Spring 2014</i>)• Machine Learning project for Professor Robert Nowak to classify Schizophrenia using fMRI data using MATLAB and python (<i>Fall 2014</i>) (https://drive.google.com/file/d/oB5hwovFoOmIiVWxwZ1BxSo9kVWM/view?usp=sharing)• Senior Design Project: Lead software design for a universal smart light switch using embedded systems and other peripherals (<i>Spring 2015</i>).• Built plotting library for data analytics using d3.js for Next-discovery a real time system to evaluate active learning algorithms.
Work Experience	<p>Image processing consultant at Echometrix (<i>Internship, Summer 2015</i>)</p> <p>Super resolving ultra sound images to improve present analysis and injury detection.</p> <p>Research Assistant to Benjamin Snyder at Computer Sciences, UW Madison (<i>May 2014 to December 2014</i>)</p> <p>Summer(2014)</p> <p>Performed Targeted Projection Pursuit on a natural language corpus and analyzed clustering of data using standard Machine Learning algorithms like regression, svms, clustering etc.</p> <p>Currently using machine learning tools provided by ConvNetJs in conjunction with D3 to build NLP data visualization tools.</p> <p>Student Teaching Assistant for Intro to Computer Engineering at</p>

UW Madison (April 2013- May 2014)

Research Assistant to Karu Sankaralingam at Computer Sciences, UW Madison (July-2012 to May 2014)

Summer(2013)

Helped Professor Sankaralingam restructure material for the class Introduction to computer engineering from LC3 to AVR.

Summer(2012)

Built an obstacle-avoiding and maze-navigating robot with the Arduino, ultrasonic sensors, and infra-red sensors. Worked with LCD screen, Ethernet shields, and radio transceivers.

Technical Skills

- Java, C, Arduino-C, Javascript, Matlab, Python
- LC 3, MIPS and AVR and ARM Assembly Language
- Took Core IT I training course offered by UW Student Technical Training and earned certification

Interests and Achievements

- On the Dean's list every semester (Fall 2011 - Spring 2014, Spring 2015)
- Member of UW Madison Soccer club (Fall 2011- Spring 2013).

Publications

- <http://research.cs.wisc.edu/vertical/papers/2014/sigcse14-arduino.pdf>