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Aritra Biswas

Education	**2011-2015** **University of Wisconsin-Madison,WI**

- B.S. Computer Engineering, Mathematics and Computer Science *(*Overall GPA – 3.543*)*
- M.S/PhD Computer Science (*Starting Fall 2015*)
- **Expected PhD Graduation date** (*Fall 2020/2021*)

Educational Projects

- Used Huffman codes to perform data compression on Presidential speeches as a project for CS 577-Algorithms *(Spring 2013)*.
- Made a basic android application, which works as a linear algebra calculator by solving basic matrix functions like determinants, multiplications, inverse etc. *(Summer 2013)*.
- Programmed Arm Cortex M-3 microcontroller and peripherals like GPIO ports, UARTS, SPI and timers. *(Spring 2014)*
- Machine Learning project for Professor Robert Nowak to classify Schizophrenia using fMRI data using MATLAB and python (*Fall 2014*)

  (https://drive.google.com/file/d/0B5hwovF0OmIiVWxwZ1BxS09kVWM/view?usp=sharing)
- Senior Design Project*:* Lead software design for a universal smart light switch using embedded systems and other peripherals (Spring 2015).
- Built plotting library for data analytics using d3.js for Next-discovery a real time system to evaluate active learning algorithms.

Work Experience

Research Assistant to Benjamin Snyder at Computer Sciences, UW Madison (*May 2014 to present*)

Summer(2014)

Performed Targeted Projection Pursuit on a natural language corpus and analyzed clustering of data using standard Machine Learning algorithms like regression, svms, clustering etc.

Currently using machine learning tools provided by ConvNetJs in conjunction with D3 to build NLP data visualization tools.

Student Teaching Assistant for Intro to Computer Engineering at 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