

# Andrew Lateef AbuMoussa

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## Education

*The University of North Carolina at Chapel Hill* *Aug. 2005 – May 2009*  
B.S. Double Major: Applied Mathematics & Computer Science with Honors  
Mathematics GPA – 3.69/4.00 Overall – 3.42/4.00

## Honors

Semifinalist in Carolina Entrepreneurial Challenge, Kenan-Flagler Business School at UNC-CH; 2010  
University of North Carolina Honors Program; 2005 - 2009  
State of North Carolina Tuition Scholarship; 2005 - 2009  
Western North Carolina Regional Scholar, The Community Foundation of WNC; 2005  
Glaxo-Smith-Kline Scholar and Research Grant; 2004

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## Skills

### Selected Computer Languages, Architectures, and Software:

*Operating Systems:* Linux/Unix, Mac OSX, Windows  
*Core Languages:* Java, Python, C, C++, Scheme, lisp, prolog  
*Web Programming:* PHP, JavaScript/jQuery, JSP, J2EE, EJB, Struts  
*Databases:* Cassandra, SQL, Access  
*Symbolic Computing:* Mathematica, Matlab, Maple, SAS  
*Graphic Suites:* Photoshop & GIMP, Sketch-Up, 3ds Max  
*Drafting and Architectural:* AutoCAD, ArchiCAD

### Spoken Languages:

Bilingual in English and Arabic. (U.S. Citizen)  
Advanced French. Basic Spanish & German

### Other Certifications:

Skydiving, Scuba, Belay

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## Major Projects

### Medicare/Medicaid Voucher/Scheduling System- *NC Department of Social Services (C#)*

Volunteer project where I automated and optimized the voucher and scheduling system for medicare/medicaid patient transportation through a custom .NET application, then presented to the state government for state-wide use and implementation.

### Senior Honors Thesis - *UNC Chapel Hill, Department of Computer Science (J2EE)*

Investigated modern interface design and then created Irys, an online auditory interface which provides visually impaired users with a more fluid, dynamic and accessible computing environment through a customized, single focus interface.

### Analysis of the Stock Market - *UNC Chapel Hill, Department of Mathematics (python)*

Examined the stochastic nature of stocks and the results of model manipulation. The analysis concluded with proposed investment schemes and improvements to the Santa Fe Artificial Stock Market and the Genetic Algorithm with Adaption Models.

### B-Splines: Data Reduction - *UNC Chapel Hill, Department of Mathematics (python)*

Demonstrated the use of 3<sup>rd</sup> Order B-splines to compress images while maintaining high resolutions

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## Employment History

**Lead Developer / Sys Admin, IWANNA USA, LLC, Asheville, NC** *Jan 2010 – present*

- Managed the complete rebuild of a classified website that serves over 25,000 classifieds weekly and generates over 1 million hits a month. The largest developmental focus was placed on the user-interfaces and the networking of the individual advertiser's classifieds. (iwanna.com)
- Proposed/developed an expansion that focuses on and supports socially aware projects and programs in the local community (iwanna.com/help)
- Proposed/developed a marketplace for local businesses to manage and brand their inventories. (iwanna.com/marketplace)

**Programing Consultant, Bishara Textile Manufacturing, Cairo, Egypt** *May 2008 – Sept. 2008*

- Designed an online management tool for a 2000+ worker textile factory. The software manages all aspects of garment production, from worker output and factory capacity to scheduling design and production deadlines. Resulted in a 12% increase in productivity.

**Programmer & Draftsman, Shamburger Design Studio, Hendersonville, NC** *May 2007 – Aug. 2007*

- Web programmer: created an ftp style page so clients could securely access rendered designs
- Architectural draftsman for 10 projects in excess value of \$15 million
- Trained a new intern

**Architectural Intern, Shamburger Design Studio, Hendersonville, NC** *May 2006 – Aug. 2006*

- Apprenticed architect through all stages of design, from initial meeting with clients, to sketching the ideas, to final presentation of plans and bidding of project to contractor
- Draftsman using AutoCAD 2005, ArchiCAD, and Google's Sketch-up.

## Volunteer and Social Work

**ChangeUP, changeintheworld.com** *December 2009 – present*

- Developing a micro-donation system that allows people to round up transactions and donate the money to charities of their choice. Currently implemented with iwanna.com and scenedipity.com

**IT Volunteer, Child and Family Resource Center, Hendersonville, NC** *September 2009*

- Repurposed 6 old computers and one laptop which weren't being used by the non-profit so they could be donated to local families and schools. Other work per request. (35 hours)