Amanda Chaffin
Software Engineer ♦ Game Designer
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EDUCATION

University of North Carolina, Charlotte Charlotte NC 8/06 – 8/09
Master of Science, Computer Science
Certificate of Game Design and Development

University of North Carolina, Charlotte Charlotte NC 1/03 – 5/06
Bachelor of Science, Computer Science
Concentration in English

North Georgia College Dahlonega, GA 6/94 -6/97

EDUCATIONAL EXPERIENCES

Fellowships/Grants

Greener GRA	$22,000	Greener Grant
Graduate Research Assistant	$20,000	NSF Funding
GAANN Fellow	$28,000	US DoE Funding
Stars Alliance Member	$2,000	NSF Funding

Experience

Professor UNC Charlotte 8/12 - Current
Professor of record for Intro to Game Design and Development (39 students, 12 graduates). Includes developing most of the course content (lectures, homework, tests, etc), delivering lectures, grading homework and exams, and also co-proctoring a Senior Project for an undergraduate student. Also mentoring 3 graduate students.

Graduate Research Assistant UNC Charlotte 1/10-8/12
GRA for *Greener*, a game for promoting awareness of energy consumption (Unity 3D), funded by a major industry partner in the Energy sector. Includes programming in multiple languages (C#, php, drupal) across multiple platforms (Unity, web, mobile, MySQL), managing a team of 3-5 on my part of the project, working with our industry partner to deliver a quality product.

Graduate Research Assistant UNC Charlotte (NSF) 1/09-12/10
GRA for Dr. Tiffany Barnes. Includes programming games, research on games, co-teaching the Advanced Game Design students, writing thesis and other publications (to include presentations), lectures, proctoring and grading exams, and mentoring several undergraduate researchers. Assisting with summer REU.

Teacher's Assistant UNC Charlotte 8/06 – 12/08
TA for the undergraduate class Introduction to Computer Science (Spring 07, Dr. Barnes), undergraduate/graduate classes Intro to Game Design and Development (Fall 06 and 08, Dr. Barnes), and Artificial Intelligence (Fall 06, Dr. Dale Marie Wilson). Responsibilities include tutoring in C++, C#, Java, and game design, game research and programming, website maintenance, lecture, proctoring exams, curriculum development assistance, and grading.

Research Assistant UNC Charlotte (NSF) 5/06 – 8/08 (Summers)
- 2008: GRA with the REU program for Dr. Barnes. Implemented in-game compiler in an XNA engine (http://darkwynter.com) to teach recursion for Master's Thesis.
- 2007: GRA with the REU program for Dr. Barnes. Researched and implemented a prototype on in-game compilation, also designed and developed a database for game log files.
- 2006: Research assistant for Dr. Barnes' Game2Learn (http://playground.uncc.edu/Game2Learn) project. Programmed a Neverwinter Nights mod to teach introductory computer science.

Theses

- CHAFFIN, A. Using Player Data to Drive Intelligent Auto-Balancing of Teams in Video Games. Ph. D. Dissertation. The University of North Carolina, Charlotte. In progress.

- CHAFFIN, A. Game2Learn: Compiler Integration into a Video Game to Increase Learning Gains in Computer Science Students. Master's Thesis. The University of North Carolina, Charlotte. May 2009.

- CHAFFIN, A. StormHaven: One Throne, One Destiny. Senior Thesis. Game2Learn. The University of North Carolina, Charlotte. May 2006.

Publications

- CHAFFIN, AMANDA, AND T. BARNES. (2010). Lessons from a course on serious games research and prototyping. Proceedings of the 5th ACM Intl. Conf. Foundations of Digital Games (FDG 2010). Monterey, CA, USA, June 19-21, 2010,

- CHAFFIN, A., DORAN, K., HICKS, D., AND BARNES, T. 2009. Experimental evaluation of teaching recursion in a video game. In Proceedings of the 2009 ACM SIGGRAPH Symposium on Video Games (New Orleans, Louisiana, August 04 -06, 2009). S. N. Spencer, Ed. Sandbox '09. ACM, New York, NY, 79-86.

- BARNES, T., E. POWELL, A. CHAFFIN, H. LIPFORD. Game2Learn: Improving the engagement and motivation of CS1 students. In ACM GDCSE 2008.

- BARNES, T., H. RICHTER, A. CHAFFIN, A. GODWIN, E. POWELL. (2007). Game2Learn: Building CS1 Learning Games for Retention. Accepted by ITiCSE2007, Dundee, Scotland, June 2007.

- BARNES, T., H. RICHTER, A. CHAFFIN, A. GODWIN, E. POWELL, T. RALPH, P. MATTHEWS, AND H. JORDAN. (2006). Game2Learn: A study of games as tools for learning introductory programming. Submitted to SIGCSE2007, Kentucky, USA, March 2006.

- BARNES, T., H. RICHTER, A. CHAFFIN, A. GODWIN, E. POWELL. (2006). The role of feedback in Game2Learn. Submitted to CHI2007, San Jose, CA, April 2006.

- CHAFFIN, A. (2005). Game2Learn: Designing a game to teach computer science. Abstract and poster presented at the North Carolina Undergraduate Research Symposium.

Awards and Honors

Second place at the 2009 UNC Charlotte Grad Research Fair
Star's Alliance Scholarship
GAANT Fellowship
REU (2006)
Who's Who in America 1994

Video Games/Projects

- **Lead Programmer/Co-Project Manager**   Spring 2010-2012
Greener - game for promoting awareness of energy consumption (Unity 3D), funded by a major industry partner in the Energy sector

- **Lead Programmer/Architect**   Fall 2009
Noah's ArcStraction – Designing and implementing a 2D game to teach Object Oriented Programming for PC and XBox 360 (XNA)

- **Lead Programmer/Architect**   Spring 2009
Surreal -Designing and implementing a 2D side scroller puzzle game for PC and XBox 360 (XNA)

- **Programmer/Artist**   December 2008
Incursion -Implemented a campaign system for a 2D RTS for PC and XBox 360 (XNA)
Published in the Community Games on XBox

- **Project Lead/Software Engineer**   Spring 2008 -09
Game2Learn – EleMental: The Recurrence -Engine redesign and implementation to include integration of a C# compiler for PC (XNA)

- **Project Lead/Programmer**   Fall 2007
Scion of the Wolf -Designed and implemented a 2.5D fighting game (with a 2D maze level) for PC and XBox 360 (XNA)

- **Artist/QA**   Spring 2007
- *DarkWynter's EleMental* -Developed test harnesses, 3D animated models, 2D art, and documentation – 3D multiplayer FPS/action game for PC and XBox 360 (XNA)

- **3D Modeler/Programmer**   Fall '05 – Spring '06
  Game2Learn's StormHaven -Created 3D models for an Unreal Tournament 2003 mod

- **Creative Designer/Programmer**   Spring '06 – Spring '07
  Game2Learn's The Catacombs, and *The Tournament* - Neverwinter Nights prototype mods teaching computer science concepts for PC

- **Artist/Writer**   Fall 2006
  Et Tu, Brutus? -Artwork, research, and in-game dialogue for a 2D side scroller for XBox and PC (XNA)

- **Creative Designer/Graphics/Webmaster**   Spring 2005
  Sniper -Designed and implemented a Half-Life 2 mod

EXPERIENCE

Webmaster/Office Manager   Premier Software Solutions   2/02 -8/02

Primary responsibilities included the development and maintenance of the company website. Other responsibilities included researching and planning the development of an intranet server utilizing Microsoft Sharepoint and preparing documentation for customers and other employees utilizing Microsoft Excel, Access, Word and Goldmine.

Systems Operator/Shift Leader   Advanced Internet Technologies   8/99 -12/01

Developed and implemented company website. Created and deployed training modules. Managed a team of six who serviced the billing and technical requirements of 130,000 accounts. Supported production servers and databases, was responsible for uptime and maintenance.

SOFTWARE EXPERIENCE

Programming: Visual C#, Java, Javascript and HTML5, Neverwinter code (C# and Java like), C++, UT Script (C++ and Java like), PHP, Perl
Graphics & Modeling: JASC Paint Shop Pro, Adobe Photoshop, Macromedia Fireworks, Amim8tor 3D. Milkshape, CB Model Pro, Maya, Bryce 5
Technologies: Microsoft XNA, Aurora Toolset, Unreal Editor, 3D Game Studio, OpenGL, WebGL, MS Office, Visual Studios, Eclipse, Linux, Solaris, Windows
Databases: MySQL, mSQL, SQL Server 2000, Oracle

ADDITIONAL INFORMATION

Published (creative fiction) three times; a short story and two poems. Received the Butch Writing Award for a short story. Undergraduate GPA 3.012. Graduate GPA 3.4.