Maxx Amand Boehme

Education

The University of Texas at Austin	Bachelor of Science in Computer Sciences, May 2014	83 hours	GPA: 3.606
Southwest Texas Junior College	Summers 2010, 2011, 2012	24 hours	GPA: 4.0

Relative Courses Taken or Currently Taking:

Computer Networks	Cryptography	Software Engineering
Intro to Computer Security	Computer Graphics	Engineering Physics I & II
Comp. Organization & Arch	Principles of Computer Systems	First-Year German I & II

Honors & Activities

- University Honors – The University of Texas at Austin — Spring 2011 – Present
- Association for Computing Machinery (ACM) — Fall 2012 – Spring 2013
- College of Natural Sciences Peer Leader Academy — Fall 2013-Present

Technical Skills (listed from most proficient to least)

- **Languages/APIs:** Java, C++, OpenGL, HTML/CSS, PHP, MySQL, C#, Python, Perl
- **IDEs:** Eclipse, Visual Studio 2010/2012
- **Operating Systems:** Windows, Linux, Mac OSX
- **Applications:** Microsoft Office (Word, Excel, PowerPoint), QuickBooks

Work Experience

The University of Texas at Austin – Computer Science Undergraduate TA/Proctor   **August 2013 - Present**

- Hold office hours tutoring students in CS 314 – Data Structures course material, homework assignments and projects
- Make testing programs and scripts for grading and maintain record keeping , also serve as teacher – student liaison

Projects   www.github.com/maxxboehme

- **Client/Server Messaging System –** Java
  - Created a Multi-Threaded Server that creates user accounts and organizes sent messages over sockets
  - Client with a GUI that allows the user to sign in and view incoming and sent messages.
- **User Photo Gallery –** HTML/CSS, PHP, MySQL
  - Website that allows users to register/login , upload photos and make photo galleries of their pictures
  - Users are then allowed to search for friends and view their photos.
- **Encryption & Decryption –** Java and C++
  - Implemented the RSA method of using a public and private key, and the symmetric key AES-128 method
  - Implemented fast modular exponentiation for RSA, and mathematical operations in Rijndael's Galois field
- **Compression & Decompression –** Java
  - Evaluated the lower bound of lossless compression of files
  - Implemented Lempel-Ziv compression/decompression and used a "trie" data structure approach to construct the dictionary
- **Motion Capture –** C++/OpenGL
  - Read .bvh files and rendered the figures' joins and limbs using rectangles and spheres
  - Implemented the ability to slow down and speed up and stop the frame rate of the animation
- **Pipelined x86 Processor Optimization –** C/x86 Assembly
  - Transformed functions from C into x86 assembly and test them against a simulator
  - Optimized a x86 benchmark program and a pipelined processor design
  - Used GNU debugger to trace through a x86 assembly language program and examine memory and registers
- **Operating System/Memory Management –** C/C++
  - Manage physical memory with pages, which are free and which are allocated, and how many processes are sharing each page.
  - Manage virtual memory with its mapping with physical memory with page tables
- **2D Games (Billiards, Rodent's Revenge "Remake", Castle Defense, …) –** Java or C++/OpenGL
  - Implemented collision detection, A* path finding for computer AI, and threading for responsive GUI

Additional Interests

- Enjoy playing the drums, skiing, wakeboarding, and weight training.
- Enjoy making 2D games usually in Java or C++ and sharing them with friends