Noel Negusse

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Education

The University of Texas at Austin *Expected Graduation: May 2017*

Bachelor of Science in Computer Science *GPA: 3.0*

Bachelor of Science in Mathematics

Skills

Languages *C++/C . Python . Verilog . Java . JavaScript . Bash*

Tools/Libraries *OpenGL . three.js . ncurses . JavaCC . nginx . ELK . CMake . Git . GDB*

Work Experience

Software Engineer Intern *June 2016 to August 2016*

Vectra Networks, Inc. *Python, C++, CMake, ELK, nginx*

- Built/Shipped an end-to-end pipeline to capture network traffic and extract metadata from deployments
- Implemented an ELK stack to visualize network traffic statistics in order to streamline protocol research

Server Administration Intern *June 2014 to August 2014*

KidsCare Therapy Offices *UN*X, Bash*

- Conducted white box penetration tests, optimized server workloads to hardware and ran system migrations

Computer Science Research Intern *January 2013 to May 2013*

The University of Texas at Dallas *Java, C#*

- Wrote the monitor interface to a wearable sensor in collaboration with EE and CS graduate students
- Developed a dynamic testing utility using *Java* to vet the sensor's gyroscope and accelerometer

Projects

Foids – Particle System *December 2016*

http://noelnegusse.com/foids *JavaScript, three.js*

- Programmed an interactive, 3D implementation of Boids using the WebGL and three.js libraries

Ray Tracer *August 2016 to September 2016*

https://github.com/tunneln/ray-tracer *C++, OpenGL*

- Developed a ray tracer implementing the Whitted-Illumination model, anti-aliasing, shading and more

Pipelined Processor *September 2016 to October 2016*

https://github.com/tunneln/pipelined-processor *Verilog*

- Implemented a 16-bit RISC pipelined processor with 2-bit branch prediction and instruction caching

Carnot Knowledge Engine *November 2015 to May 2016*

https://github.com/tunneln/CarnotKE *Java, JavaCC*

- Collaborated with Professor Philip Cannata to develop a *Multi Language Interface to Heterogeneous DB*
- Reimplemented a semantic DB over Oracle NoSQL and extended the query language for dynamic schemas

Virtual Memory Framework *March 2015 to May 2015*

https://github.com/rellermeyer/course_os *C*

- Constructed swapping system and page fault handler from the ground up for our made-from-scratch kernel

ASCII Invaders *Feburary 2015*

https://github.com/tunneln/ascii-invaders *C++, ncurses*

- Developed a simple remake of Space Invaders using the ncurses library and ASCII character sprites