

# NOEL NEGUSSE

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## EDUCATION

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### The University of Texas at Austin

*Expected Graduation: May 2017*

*Bachelor of Science in Computer Science*

*GPA: 3.0*

*Bachelor of Science in Mathematics*

## WORK EXPERIENCE

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### Software Engineer Intern

*June 2016 to August 2016*

*Vectra Networks, Inc.*

*Python, C++, ELK, nginx, CMake*

- 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*

*UNIX, Bash Script*

- Monitored server activity, optimized workloads, probed server security and aided in system migrations

### Computer Science Research Intern

*January 2013 to May 2013*

*The University of Texas at Dallas*

*Java, C#*

- Collaborated with EE and CS graduate students to program a wearable sensor used for fall prevention
- Developed a dynamic testing program using *Java* and *C#* to vet the device's gyroscope and accelerometer

## PROJECTS

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### Foids – Particle System

*December 2016*

*<http://noelnegusse.com/foids>*

*JavaScript*

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

### Ray Tracer

*August 2016 to September 2016*

*<https://github.com/tunneln/ray-tracer>*

*C++*

- 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 Prof. 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

### Swapping & Paging Framework

*March 2015 to May 2015*

*[https://github.com/rellermeyer/course\\_os](https://github.com/rellermeyer/course_os)*

*C*

- Designed and implemented the swapping framework from the ground up for our made-from-scratch kernel
- Built the virtual memory's page fault handler and integrated it with the kernel's file system framework

### ASCII Invaders

*February 2015*

*<https://github.com/tunneln/ascii-invaders>*

*C++*

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