Federico Menozzi

Tel: 919-909-5329 • **E-mail:** federicogmenozzi@gmail.com • **GitHub:** fmenozzi

Education

Master of Science in Computer Science, University of North Carolina at Chapel Hill
Expected Graduation Date: May 2017

Bachelor of Science in Computer Science with Honors, University of North Carolina at Chapel Hill
Graduated: May 2016
Cumulative GPA: 3.6 out of 4.0

Relevant Coursework: Compilers, Operating Systems, Digital Logic, Algorithms & Analysis, Computer Graphics, Parallel & Distributed Computing, Computer Security, Computer Vision

Experience

Google, Chapel Hill, NC   May 2016—August 2016
Software Engineering Intern—Skia
- Developed an algorithm in **C++** for generating **GLSL** shaders that render gradients with hard stops on the GPU for the Skia graphics engine.
- Implemented image and performance tests to assess the feasibility of the algorithm and compared different gradient use cases against a corpus of web page data.

UNC, Chapel Hill, NC   August 2015—May 2016
Undergraduate Honors Thesis
- Performed research under advisor Henry Fuchs in applying virtual reality (VR) to medical training scenarios.
- Culminated in senior honors thesis entitled "Virtual Presence for Medical Procedures", research presentation, and fourth authorship on a paper entitled "Immersive Learning Experiences for Surgical Procedures."

UNC, Chapel Hill, NC   August 2015—May 2016
Undergraduate Teaching Assistant
- TA-ed for UNC's introductory "Foundations of Programming" course for two semesters.
- Responsible for holding offices hours and review sessions, and grading assignments and exams.

IBM, Austin, TX   May 2015—August 2015
Extreme Blue Technical Intern—FuseBox
- Implemented a POSIX-compliant **FUSE** filesystem interface for **Openstack Swift** object storage in **C** and **C++.**
- Integration with IBM cloud offerings like Softlayer and Bluebox has potential to increase adoption of IBM cloud technologies and increase revenue by a projected $33 million by 2018.
- Prepared a four-minute product presentation to pitch to senior executives at IBM HQ, including Steven Mills, executive vice president of IBM Software and Systems.

Applied Research Associates, Raleigh, NC   July 2014—August 2014
Technical Intern—BioGears
- Contributed heavily to **Java** frontend of BioGears, an open-source human physiology engine.
- Translated key components of core engine from **C++** to **Java** to facilitate use in frontend GUI.

Projects
- Software rasterizer and raytracer in **C++**
- **Web app** for designing course syllabi
- 2D graphics library in **C++** and later in **Rust**
- **Java** program that utilizes linguistics theory to generate random, grammatically-correct sentences
- 32-bit **MIPS** processor in **SystemVerilog** deployed to a Field Programmable Gate Array (FPGA)
- **Linux kernel module** that presents OS internals as a **SQLite** table
- Small **MATLAB** interpreter in **C++**
- Compilers in **Java** for both a subset of Java and an invented language