

Samuel Lichtenheld

440 Palmwood Lane
Key Biscayne, FL 33149
(786) 247-3629
slichtenheld@ufl.edu

STATEMENT OF PURPOSE

I am an undergraduate Computer Engineering major at the University of Florida seeking acceptance into the Electrical Engineering MS/BS program. Computer architecture and embedded systems particularly pique my interests.

EDUCATION

Bachelor of Science in Computer Engineering
University of Florida, Honors College

December 2016
GPA: 3.62

PROFESSIONAL EXPERIENCE

Northrop Grumman, Hill Air Force Base, UT
Electrical Engineering Intern

May 2015 – August 2015

- Reverse-engineered a portion of the guidance circuitry found in the Minuteman III missile
- Conceived a method to extract data from OrCAD PSpice files no longer supported
- Analyzed circuits to come up with appropriate input test signals and to determine correct output signals

University of Florida, Gainesville, FL
Teaching Assistant – Computer Organization

August 2015 – Present

- Assisted students in understanding subject material
- Authored homework for students as well as graded homework and exams

PROJECTS

Hardware

- Designed a space arcade video game in VHDL using an FPGA and a VGA connection
 - User could move spaceship to avoid lasers from aliens
- Programmed a microprocessor to interface with a Samsung TV remote in C and assembly
- Devised an 8-bit computer using VHDL on an FPGA

Software

- Instituted the back-end of a journal application in C++ in a group project
 - Allowed for easy implementation of features such as separate users, password protection, encryption, and search functions from other members
- Created a custom B-Tree class using C++
- Authored a text adventure game in Java
 - User could pick up and drop items at all virtual locations in the map
 - Events triggered based on items held, such as keys opening doors etc.

SKILLS

Computer Languages: Assembly Language, C++, Java, VHDL

Computer Programs: Altium Designer, Atmel Studio, MATLAB, PSpice, Quartus, R, SolidWorks

Language: English (native); German (fluent)

VOLUNTEERING

High School Outreach, Clearfield Area, UT

May 2015 – August 2015

- Assisted middle school students in the creation of air-propelled rockets to stimulate their interest in STEM academics

Shake-A-Leg Miami, Miami, FL

May 2009 – August 2011

Mentor/Teacher's assistant

- Taught sailing, swimming and kayaking to children with physical, developmental and economic challenges, accumulating more than 1,000 hours of community service
- Taught marine environment lessons about Biscayne Bay, Shake-A-Leg's location

EMPLOYMENT

Centertone Inc., Key Biscayne, FL

June 2012 – August 2013

Summer Camp Guitar Instructor

- Instructed groups of three to seven students ages 4 to 12 in beginner guitar skills
- Supervised other camp activities
- Designed customized music curriculum for each group

EXTRACURRICULAR ACTIVITIES

Member, *Machine Intelligence Laboratory*

August 2014 – May 2015

- Refined a hot swappable battery system, which powers the wireless router needed to communicate with the PropaGator, to inform the user when new batteries are required.

Member, *Gator Motorsports*

August 2013 – May 2014

- Developed skills using the lathe and mill

Member, *Theta Tau Professional Engineering Fraternity*

May 2014 – Present

COMPLETED COURSEWORK

- Digital Design
- Data Structures and Algorithms
- Introduction to Computer Organization
- Microprocessor Applications
- Digital Logic and Computer Systems
- Circuits 1
- Programming Fundamentals I & II
- Introduction to Signals and Systems

ACADEMIC ACHIEVEMENTS

UF College of Engineering Dean's List

Fall 2012 – Spring 2015

IB Diploma

June 2012

Sprachdiplom B-1 & B-2 (German language efficiency diploma)

June 2011

INTERESTS

Tennis

- Took lessons for 7 years; now I play recreationally with friends

Guitar

- Studied electric guitar throughout high school; played solos in rock “recitals”

Strength Training/ Olympic Lifting

- A year after I stopped playing tennis as frequently, I took up strength training to stay in shape