

Alexander (Alex) Coy

Curriculum Vitae

PERSONAL DETAILS

Mail ac2456@cornell.edu

EDUCATION

BS. Electrical and Computer Engineering

2017-2021

Cornell University

Projected graduation year: 2021. Completed core engineering courses and started to complete more advanced design and project oriented courses. Current cumulative GPA: 4.016. Transcript available upon request.

WORK EXPERIENCE

Undergraduate Researcher

2018-2019

Cornell University, Part-time

2018-Spring 2019 (Prof. Z. Zhang): Develop sparse matrix accelerator kernels. Fall 2019 (Prof. K. Zhang) : Develop a low-cost, non-intrusive water usage monitor prototype.

Lifeguard

2015-2019

Lighthouse Pool Management inc., Part-time

Collaborate with others to maintain a safe, clean, and enjoyable community pool.

Pool Manager

2017-2019

Lighthouse Pool Management inc., Part-time

Oversee other lifeguards to help them to maintain a safe, clean, and enjoyable community pool.

Lifeguard Instructor

2018-2019

Lighthouse Pool Management inc., Part-time

Teach appropriate rescuer courses to the American Red Cross standard. Run unannounced skill audits and review skills with Lighthouse employees as necessary.

Lifeguard

2018-present

Cornell University, Part-time

Collaborate with others to maintain a safe, clean, and enjoyable university pool.

Performance Space Manager

2018-present

Cornell University, Part-time

Collaborate with all users of the Just About Music(JAM) program house so that they can get the most out of JAM's audiovisual equipment and spaces.

Research Intern

Summer 2016

NASA GSFC, Full-time

Analyzed trends between Aerosol Optical Depth (AOD) readings and surface PM 2.5 concentrations to determine the feasibility of using AOD as a predictor for surface PM 2.5 concentrations.

SKILLS

<i>Languages</i>	English (first language) Spanish (fluent)
<i>Programming</i>	Procedural and object-oriented design Modular programming with automated unit testing Complexity/runtime analysis Coursework in Java 8 and Common LISP Familiar with C-like languages, Python, IDL, HTML/CSS VERILOG, OPENCL with Intel FPGA SDK Always willing to explore new languages and tools
<i>Software</i>	MATLAB, KICAD, L ^A T _E X, AUTODESK INVENTOR, OPENSCAD CADENCE VIRTUOSO, LOGIC PRO X, FINAL CUT PRO X GIT, VI, BASH, ECLIPSE Microsoft Office Trio (Word/Powerpoint/Excel) and equivalents Ask for familiarity with unlisted software
<i>Workshop</i>	Most powered and unpowered human-controlled shop tools Some experience with 3D Printing and CNC equipment Fast, disciplined, safe learner and operator
<i>Circuit Analysis</i>	Usage of multimeter, oscilloscope, function generator, SMU and theories behind tests at Cornell ECE 4530 level Analysis and testing of circuits involving transistors, diodes inductors, capacitors, and resistors
<i>A/V Tech</i>	Live sound reinforcement: any size system Lighting console operation and organization Sound, lighting, and projection layout, setup, and teardown Attention to detail and showmanship
<i>Music</i>	Multichannel, multitrack recording in and out of studios Specialized in bass trombone and tuba Experience in all other winds, piano, upright bass, and bass guitar
<i>Ensembles</i>	CU Wind Symphony, Big Red Marching Band MD All State band and jazz, All-Eastern jazz, plus others

REFERENCES

Available upon request