Alex Ying

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SUMMARY

Seeking an engineering internship in communications or RF systems. Strong science and engineering skills, highly motivated with good work ethic.
US Citizen.

EDUCATION

UNIVERSITY OF MICHIGAN

Ann Arbor, MI
MSE Electrical Engineering
Expected May 2018
Digital Communications
BSE Electrical Engineering
Expected May 2017
Communications and RF
Minor in Physics
Cum. GPA: 3.97 / 4.0
Major GPA: 3.97 / 4.0

COURSEWORK

GRADUATE

EECS 501 Probability/Random Processes
EECS 554 Intro to Digital Comm./Coding
Planned Winter 2017:
EECS 555 Digital Communication Theory
or
EECS 557 Communication Networks

UNDERGRADUATE

EECS 230 Electromagnetics I
EECS 270 Intro to Logic Design
EECS 281 Data Structures/Algorithms
EECS 330 Electromagnetics II
EECS 351 Intro to DSP
EECS 475 Intro to Cryptography
PHYSICS 390 Intro to Modern Physics
PHYSICS 401 Intermediate Mechanics
Planned Winter 2017:
EECS 430 RF Propagation/Link Design

TEACHING

EECS 351 Intro to DSP

SKILLS

SOFTWARE

MATLAB • LabVIEW • SciPy • LaTeX • Git

PROGRAMMING

Extensive:
C++ • Python • MATLAB
Familiar:
Ruby • Java • Javascript • Bash/Shell

EXPERIENCE

MIT LINCOLN LABORATORY

Summer Research Program Intern
May 2016 - Aug 2016 | Lexington, MA

- Evaluated signal processing algorithms against field collected data for detecting buried infrastructure.
- Conducted several field data collections for algorithm evaluation and simulation validation.

UNIV. OF MICHIGAN, ADVANCED RESEARCH COMPUTING

High Performance Computing Systems Developer
Sep 2014 - Apr 2016 | Ann Arbor, MI

- Developed a custom dashboard for sysadmins to succinctly display high performance computing cluster status and information. Made extensive use of Python to interact with the cluster scheduler, Graphite real-time graphing system, and a responsive dashboard page.
- Improved overall workflow by developing terminal utilities for sysadmins and end-users to retrieve data from the scheduler and display in a variety of machine (JSON, CSV, XML) and human readable formats.

UNIV. OF MICHIGAN, QUANTUM OPTOELECTRONICS LAB

Research Assistant
May 2014 - Aug 2014 | Ann Arbor, MI

- Optimized experimental workflow by developing custom LabVIEW programs to monitor tests. Created programs that provided both a graphical status display as well as text message and email notifications.

PROJECTS

FMCW RADAR SYSTEM | EECS 330 Electromagnetics II

Oct 2015 - Dec 2015

- Led a group of 3 students that designed and constructed a frequency-modulated continuous-wave RADAR system from basic RF components
- Modeled and tested various antennae for use in the RADAR system
- Developed signal processing programs in MATLAB to analyze and display data

MOTOR/PROP. TEST STAND | Mich. Autonomous Aerial Vehicles

Oct 2013 - Aug 2014

- Upgraded original test stand hardware to provide more accurate data. Rewrote original Arduino software for better efficiency and stability and developed a Qt/C++ GUI control interface to support automated testing and data collection.

AWARDS

Jean Fairfax Scholarship	University of Michigan	2013 - 2017
William J. Branstrom Freshman Prize	University of Michigan	2014
University Honors	University of Michigan	All Terms
Dean's List	UM College of Engineering	All Terms

STUDENT ORGS AND ACTIVITIES

Eta Kappa Nu (HKN) EECS Honor Society	Apr 2015 - Present
Michigan Autonomous Aerial Vehicles (MAAV)	Oct 2013 - Mar 2016
University of Michigan Marching Band	Aug 2013 - Present