

Alexander C Mark

PRESENT ADDRESS

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CONTACT INFORMATION

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[Linkedin](#)

EDUCATION

Masters of Science, Physics, 2019

University of Illinois at Chicago, Chicago IL

Bachelor of Science, Physics, 2016

Missouri University of Science and Technology
Minor in Mathematics
Summa Cum Laude

Bachelor of Science, Electrical Engineering, 2016

Missouri University of Science and Technology
Summa Cum Laude

EXPERIENCE

Research Assistant

University of Illinois at Chicago
Chicago, IL

2017-Present

- Experiments involving conformally symmetric condensed matter systems.
- Design and implementation of nanofabrication techniques for high pressure cells.
- Designed modifications to high pressure Diamond Anvil Cells.
- Experience designing and implementing precision measuring equipment, including working with high voltages and ultra high vacuums.
- Worked at APS synchrotron beamline for X-ray measurements.
- Skilled at analyzing large amounts of data
- Experienced crystallographer
- Have received \$5000 in individual funding.

Tutor

Educational Endeavors
Chicago, IL

2018-present

- Private tutor for Chicago area high school students.
- Specializes in math and science tutoring.

Teaching Assistant

University of Illinois at Chicago
Chicago, IL

2016-2018

- Responsible for teaching and grading introductory level physics classes and labs.
- Helped design and teach an introductory level physics class aimed at preparing remedial-level students for college-level physics.

Lab Assistant

Missouri S&T
Rolla, MO

2013-2016

- Grew and prepared crystal samples for analysis.
- Experience operating atomic force microscopes and scanning tunneling microscopes.
- Interpreted and presented data for undergraduate research conferences on graphene and dichalcogenide synthesis.

Summer Internship

BECS Technology
St. Louis, MO

2014

- repaired test fixtures for the manufacturing of circuit boards.
- Designed switching power supply for use in various products. Still being used as of 2020.
- Aided in the design of flow sensor for use in water-chemistry controllers.

COMPUTER SKILLS

- Microsoft Office
- Windows operating systems
- UNIX based systems (Ubuntu, Raspian)
- Altium Designer
- LaTeX
- Eagle
- Computer Repair
- Programming (Python, C++, Matlab, NI programming environments, BASIC)

TECHNICAL SKILLS

- Circuit board prototyping and design
- PLC programming/implementation
- High voltage/high power equipment
- Data analysis
- High and ultra-high vacuum equipment
- Machine shop skills
- Basic glass-working skills
- Safe handling of caustic materials
- Wiring audio equipment
- Construction of lab equipment
- Experience utilizing research grade lasers/optics

AWARDS

University of Illinois at Chicago Provost Award, \$5000 to continue my research into conformally symmetric systems.

LEADERSHIP EXPERIENCE

Fencing Club	University of Illinois at Chicago	2017-present
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- Co-founder
- President 2017
- Armorer 2018-present
- Recruited 15+ active members and secured funding for the foreseeable future

GEO steward	University of Illinois at Chicago	2019-present
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- Responsible for informing GEO members about the graduate student union