Alexander Newberry

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OBJECTIVE   Continue my pursuit of higher education and earn a PhD in Physics.

EDUCATION   University of California San Diego   September 2014 - Present
Physics B.S.   Upper Div. Physics GPA: 3.9
Senior, Graduated with High Honors

COURSEWORK   Taken honors physics curriculum above what's required and excelled.
Computer science courses through data structures, discrete math, systems analysis,
assembly coding, and general data analysis in a variety of languages.
Awarded the "Chancellor's Research Excellence Scholarship"

SKILLS

Proficient with Unix, Python, Java, Mathematica, and Matlab.
Familiar with Solidworks, C, Labview, and various microcontrollers.
Four years of experience in laboratory settings.

WORK EXPERIENCE   UCSD Cosmology Department   January 2015 – December 2016
Radio Telescope Operator / Research Intern
➤ Performed duties involving operating, coding, and gathering data from the Small
  Radio Telescope at UCSD under Dr. Keating
➤ Constructed silicon lenslets to be used in the Simons Array
➤ Worked on Project Apollo using Python to detect hardware malfunctions resulting in
  inaccurate Lunar Ranging data under physics department vice chair Dr. Murphy

Los Alamos National Laboratory   June 2016 – July 2016
Summer Research Intern
➤ Worked in LANSCE Weapons Division p-27 on the SPIDER detector to gather data
  on fission mass yields
➤ Designed circuitry and assisted in building hardware for SPIDER

Salk Institute   October 2015 - Present
Research Intern
➤ Designed and implemented apparati that make use of microcontrollers to assist with
  observing active neurons in mice for behavioral neurogenesis research
➤ Developed a methodology for data retrieval from noisy videos of deep neurons in
  Matlab which was used as my lab's standard for data analysis
➤ Honors thesis project of helping design and build a dual-beam two photon
  microscope, specialized in integrating adaptive optics into the project

UCSD PHYS 120   March 2018 - Present
TA/Lecturer

➢ Graded homework for students and tutored in hands on circuit training
➢ Gave a weekly two hour lecture on circuit components and relevant physics

REFERENCES   Available upon request