

Alex José Brinson

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EDUCATION

Sept 2014 – June 2018	California Institute of Technology, Pasadena, CA BS in Physics ; GPA: 3.6
Aug 2010 – May 2014	Cedar Ridge High School, Round Rock, Texas GPA: 4.00/4.00 (Unweighted), 5.69/6.00 (Weighted)

TECHNICAL SKILLS

Languages and Software:

- Python, Mathematica, C++, C, MATLAB, R, LaTeX, kramdown, Microsoft Office

Hardware:

- Experience with Oscilloscopes, Interferometers, Spectrometers, Monochromators, Magnetometers, Soldering

RESEARCH EXPERIENCE

Jun – Aug 2018	Cosmic DAWN Summer Research Fellow 40 hours/week Investigated method to infer galaxy redshifts based on angular correlation functions from large samples COSMOS catalogue data.
Jan – Jun 2018	nEDM Group Undergraduate Researcher 9 hours/week Adapted Mathematica FCS simulation to model the peculiar geometry of the Oak Ridge nEDM apparatus.
Jun – Aug 2017	nEDM Group Research Fellow 40 hours/week Created Mathematica simulation of Field Compensation System (FCS) to optimally offset ambient magnetic fields. Performed thorough analysis of lab magnetization sources to determine a suitable experiment location.
Oct – Dec 2016	Keck Array Undergraduate Researcher 9 hours/week Calibrated Cernox thermometers, analyzed load curves in Python to determine Power vs. Temperature behavior.
Jun – Aug 2016	Keck Array Research Fellow 40 hours/week Characterized dark properties of TES bolometers for later use in CMB detection. Assisted with cryostat assembly.

OTHER WORK EXPERIENCE

Apr – Jun 2017	Ph 7 Undergraduate Teaching Assistant 9 hours/week Graded pre-lab exercises, assisted with in-lab procedures and guided post-lab analyses.
Apr 2015 – Mar 2017	Student Waiter 6 hours/week Set up and cleaned up dinners for undergraduate students.

HONORS & AWARDS

- 2017 CEU (Conference Experience for Undergraduates) Award Recipient
- 2016 Edward C. and Alice Stone SURF Fellow