Nicholas Poole

**Award:** Undergraduate Student Research; $4000.00

**Status:** Freshman, Physics

**Advisor:** Brant Carlson

**Research Topic:** Data aqcuistion software development

**Abstract:** This project is the development of a data acquisition device, based on the XMOS startKIT microcontroller, capable of reading and saving analog values at a high rate. The project development consisted of two phases; for use by the Carthage College RockSat-C team in an experiment which is looking at the effect of electromagnetic radiation emitted from lightning on the atmosphere, and a means for large bodies of data created during a test to be observable during the test. The project is based on code developed by; M. Hernandez, T. Shannon as part of 2015 – 2016 Carthage College RockSat-X team.

**Biography:** Nicholas Poole is a fulltime undergraduate student attending Carthage College currently  
 completing his freshman year. He is double majoring in Physics and Mathematics and is  
 expected to graduate in the year 2020. He is currently a member of the RockSat-C club acting as the leader of the digital electronics team, responsible for writing the software necessary to run the clubs current experiment. Over the summer of 2017 he will be performing research for the RockSat-C team in the form of developing more software for use in future experiments.

**Congressional District:** 1

**Congressional Representative:** Paul Ryan