

# Salvatore Zerbo

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## EDUCATION

### Drexel University

Philadelphia, PA

Sep 2014 – Jun 2019

### BACHELOR OF SCIENCE IN PHYSICS

- Minors in Astrophysics and Mathematics
- **Cumulative GPA: 3.87**

### HONORS & AWARDS

- Dean's List Sep 2014 – Jun 2019
- A.J. Drexel Scholarship Sep 2014 – Jun 2019
- Drexel Dragon Award Sep 2014 – Jun 2019
- STAR Scholar Jun 2015 – Sep 2015

### NOTABLE & RELEVANT COURSEWORK

- Data Structures | Systems Architecture | Numerical Analysis I, II
- Discrete Event Simulation | Intro to Optimization Theory

## EXPERIENCE

### University of

### Pennsylvania

Philadelphia, PA

Apr 2018 – Sep 2018

### RESEARCH ASSISTANT

- Simulated self-interacting dark matter models using n-body simulations in GADGET on the NERSC computing cluster
- Wrote scripts for setting up initial condition states and performing data analysis in Python
- Discovered and analyzed issues with the setup of the initial condition states

### Drexel University

Philadelphia, PA

Apr 2017 – Mar 2018

Sep 2018 – Jun 2019

### RESEARCH ASSISTANT

- Designed a gui in Python for viewing and fitting bubble chamber data
- Designed and simulated a low energy neutron source for calibrations using GEANT4
- Aided in construction and performed routine maintenance and operation of prototype bubble chamber for dark matter detection

### Temple University

Philadelphia, PA

Mar 2016 – Sep 2016

### RESEARCH ASSISTANT

- Designed a gui in MATLAB for calculating film thickness and optical properties using acquired Ellipsometer data
- Prepared and grew superconducting MgB<sub>2</sub> thin films
- Collected and analyzed data on superconducting films for desired properties

### Drexel University

Philadelphia, PA

Jun 2015 – Oct 2015

### RESEARCH ASSISTANT

- Developed an algorithm for combining overlapping void regions into single spheroid object
- Converted SDSS data for visualization using Python and MATLAB
- Created 3D visualizations of voids and galaxies for analysis using VisIt

## SKILLS

Python | MATLAB | C# | LaTeX | Simulations | Data Modeling & Analysis | Bash | Linux | Git | Racket | Debugging

## ACTIVITIES

### Drexel University

### CLUBS

- Track Club Sep 2014 – Mar 2019
  - Travel Coordinator Sep 2018 – Mar 2019
  - Vice President Dec 2017 – Jun 2018