

# AARON CHRISTSON

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## EDUCATION

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### Berea College

Bachelor of Arts Computer and Information Science

Minors in Business Administration and Mathematics

Graduation Date: May 2020

Major GPA: 3.67

Overall GPA: 3.54

### Relevant Courses

Data Analytics — Data Structures — Networking —

Database Systems — Deep Learning — Applied Statistics —

Calculus II — Theory of Computation —

Open-Source Software Engineering — Embedded Systems —

Differential Equations — Linear Algebra —

CyberSecurity(Codepath/Facebook)

## SKILLS

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**LANGUAGES:** Python, C++, R, PHP, MySQL, JavaScript

**TOOLS:** Jupyter Notebook, Pandas, Numpy, Keras, PyTorch

**OTHER SKILLS:** Unix/Linux, Git/Github, Microsoft Office Suite, French Language, G-Suite

## PROJECTS

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### Predicting Generalization in Neural Networks

*May 2019 – Aug 2019*

Built a neural network generator using **Python** and **PyTorch** that produced random neural networks fitted to the CIFAR 10 image dataset and a data processor to format the generated neural networks in a way that could be used as an input to other neural networks.

Saved the team several days of manually generating a dataset of neural networks.

### CELTS Database System

*Aug 2019 – Dec 2019*

Worked on a team of four to build a relational database system, using **HTML**, **CSS**, **MySQL**, and **PHP** to help CELTS, a non-profit organization in Berea, keep better track of the number of volunteer hours their volunteers worked.

### Problem Solving with Algorithms and Data Structures using C++ (Open Source)

*May 2018 – July 2018*

Co-authored a book for Python programmers to help with the transition to **C++** (C++ for Python Programmers and C++ Data Structures and Algorithms) utilizing open source resources from Runestone Academy, a website accessed by over 100,000 people. (<https://runestone.academy/runestone/static/cppds/index.html>)

### Greenaive

*Dec 2017 – Current*

Built a web application on a team of four people that used **Python** and **Flask**, as a participant of the Berea College Hackathon. Our web app used the **Clarifai API** to distinguish between objects that are considered as trash, compostable, or recyclable. Because of the sustainability theme we were able to win first place. (<https://greenaive.co/>)

## EXPERIENCE

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### University of Illinois at Urbana-Champaign, DREU, Champaign, Illinois (Research)

*May 2019 – Aug 2019*

Worked under Dr. Koyejo and PhD student Brando Miranda to build a Meta Learning neural network that predicts the generalization error of a neural network based on its architecture.

Assisted with building a dataset for the model by using PyTorch to fit several models to the CIFAR10 dataset and collecting information about the architecture, the train error, and the test error.

### Berea College, *Teaching Assistant*, Berea, Kentucky

*Aug 2017 – May 2020*

Assisted the Data Structures professor with the redesign of the course, by writing up quizzes for the assigned readings from the new C++ Data Structures book I helped to write and grading in-class work and homework.

Held TA hours for 2 hours four times a week to help over 30 students to understand challenging Data Structures concepts.

## ACTIVITIES

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**Facebook Developer Circle**, Berea, Member

*July 2019 – Current*

**Epsilon Pi Tau (Technology Honor Society)**, Member

*Apr 2019 – Current*

**Computer Science Club**, Member

*Sept 2018 – Current*