

Ethan M. Bensman

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EDUCATION

Clemson University Honors College

GPA: 4.0/4.0

- *Bachelor of Science, Computer Science*
- *Minor, Biochemistry and Biology*

Graduation: May 2021

Stellenbosch University, Stellenbosch, Western Cape

Summer 2018

PROFESSIONAL EXPERIENCE

Bioinformatics Computing Research

Summer 2018-Present

- Optimizing genome storage and transfer with lossy compression of FPKM-GEM using Python and zfp to reduce sequencing time by around 50%
- Apply statistics to model predictions in Python for data transfer and information loss
- Work done in the lab of Dr. Alex Feltus - CEO of Allele Systems, LLC

Computational Physics Research with Dr. Mike Sokoloff

Summer 2016 – Fall 2016

- Learned C++ to isolate the mass of the positively-charged charmed lambda baryon
- Used TTree and Objective C in ROOT Framework for CERN particle collider's data management and manipulation

PROJECT EXPERIENCE

Tensorflow Data Analytics

Spring 2018-Present

- Built Python application with Tensorflow API to learn user-chosen color filtration of CIFAR image dataset minimizing feature loss
- Utilized Tensorflow to make prediction algorithm for NBA regular-season wins

Twitter API

Summer 2018-Present

- Learned Twitter's API and used FastText with Python to make archiving and "empathetic" Twitter application

Yelp! Dataset Challenge

Fall 2017

- Cleaned word vectors in Python and passed them to Facebook's fastText API to perform tip classification with sentiment analysis on Palmetto Cluster supercomputer

HONORS AND AWARDS

University Innovation Fellow

Fall 2018 - Present

- Nominated by university and accepted into Stanford University's nationwide network of students actively promoting innovation

Clemson University National Scholar

Fall 2017 - Present

- One of eight students selected for Clemson's premier full tuition academic scholarship and enrichment program

LEADERSHIP EXPERIENCE

Assistant Director of CUhackit

Spring 2018 – Present

- Oversee planning and direction of Clemson's campus-wide fall and spring hackathons
- Established Clemson's first "Hello World" freshman hackathon to teach and develop student skills in applied science (i.e. 3-D printing, coding, electrical engineering, etc.)

SPECIAL SKILLS

Programming

- Python, Java, C++, C, Linux, UML, Data Structures, Algorithms, PhantomJS, Tensorflow, HTML

ACTIVITIES AND INVOLVEMENT

IT Student Advisory Board

Fall 2017 – Present

- One of twelve appointed campus-wide voting members
- Manage the allocation of \$500,000 yearly to fund student technology projects

UNICEF

Fall 2017 – Present

- Volunteer at local schools and on-campus events to bring global citizenship awareness to the public