Ethan M. Bensman

ebensma@clemson.edu • 513-655-8294 • linkedin.com/in/ethan-bensman

Education

Clemson University GPA: 4.0/4.0

Bachelor of Science, Computer Science Graduation: May 2021

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

Professional Experience

Amazon Web Services May 2019 — August 2019

Systems Intern

- Used Flask and AWS tools to create backend REST API for internal dashboarding app
- Implemented multithreading in parallelizable workflow to improve response time ~100x
- Architected MVC design for app development to include gunicorn and SSL certification
- Developed software in continuous deployment environment and maintained service health

Clemson University August 2018 — Present

Bioinformatics and Computing Researcher

- Built Kubernetes-integrated Nextflow pipeline to automate large batch jobs with Docker
- Published academic journal article on a lossy compression algorithm of genomic data with Python to reduce sequencing time of FPKM-GEM by 20%

The University of Cincinnati May 2016 — August 2016

Computational Physics Intern

- Analyzed decay patterns to isolate positively-charged charmed lambda baryon mass
- Gained experience with C++ and TMVA machine learning in the ROOT Framework

Leadership Experience

CUhackit April 2018 — April 2019

Assistant Director

- Managed team of 30 in directing Clemson's nationwide spring and fall 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.)

Personal Projects

TakeNote

- Built Python application to perform "Hey Alexa" style longform verbal note-taking
- Implemented multithreaded backend with Google Cloud Platform to quickly process speech
- Created simple GUI for user-friendly design upon release

Face Patrol

- Used Python-OpenCV to implement Face ID for lock/unlock system controls on my Mac
- Introduced Keras convolutional neural network to improve system accuracy and labeling

NBA-Tensorflow

- Implemented GAN in Tensorflow to create new NBA player headshots from database
- Optimized with visualizers of accuracy and error using numpy and matplotlib

Special Skills

Coding: Python, C++, C, Java, Linux, HTML, CSS, Tensorflow, Numpy, Flask, AWS, GCP, Piet

Concepts: Data Structures, Algorithms, Model-View-Controller, RESTful APIs, Client-Server Model, Big Data Manipulation, Generative Adversarial Networks, Convolutional Neural Nets