Robert V. Cranston

robert.cranston@duke.edu
www.linkedin.com/in/RobertVanceCranston
(470)-331-6231

EDUCATION

Duke University, Durham, NC

> **Bachelor of Science (B.S.), Electrical and Computer Engineering, Expected 2023**
>
>> Relevant Coursework: Engineering Design and Communication, Foundations of Electrical and Computer Engineering, Introduction to Signals and Systems
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> **Bachelor of Science (B.S.), Computer Science, Expected 2023**
>
>> Relevant Coursework: Computational Methods in Engineering (Python), Data Structures and Algorithms (Java)
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> **GPA: 3.925**
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> **Honors: Deans List Fall 2019**

RELEVANT EXPERIENCE

Duke University Pratt School of Engineering (Teachers Assistant), Durham, NC   *Fall 2020*
- Serving as a Teaching Assistant for the required first-year class Engineering Design and Communication.
- Directly overseeing three groups of four freshmen and assisting eight more groups in their first design projects to be delivered to various clients.
- Assisting in optimizing the design space by sorting out the seating that allows for the maximum number of students while still complying with COVID-19 regulation. This was to decrease the number of students forced to take the class online.

Georgia Tech Research Institute (Research Intern), Atlanta, Ga   *Summer 2018*
- Collaborated with a team researching how to use the audio in a chicken coup to determine the health of chickens.
- Used TensorFlow to create machine learning models that used k-means, singular value decomposition, and chroma features to solve issues for Poultry Farmers by automating the detection of disease in chickens based on audio signals. These models were written in python using anaconda.
- Attended meetings twice a week over ten weeks with a team of eight people to present our findings and results from the data.

Personal Projects:
- Designed a python script that scraped stock information off the web using the beautifulsoup library. This script then then screened for stocks based on standard trading algorithms such as the 52-week breakout and the Volume Weighted Average Price High of Day.

CAMPUS AND CIVIC INVOLVEMENT

Alpha Phi Alpha Fraternity Inc. (Vice-President, Parliamentarian), Durham, NC   *Spring 2020 - present*
- Assisting the president by helping to make the agenda for meetings and by running meetings if he is absent.
- Maintaining order and ensure that we are efficient and are correctly following Robert's Rules of Order.
- Coordinating with two other chapters close to Durham to plan voter registration drives and providing information about the 2020 election to the Duke community

National Society of Black Engineers (Parliamentarian), Durham, NC   *Spring 2020 - Present*
- Developing the chapter objectives for the year to present to the national chapter and display on the website of the Duke chapter.
- Ensuring that executive board meetings are efficient and effective by monitoring communication in the Slack channel and assisting in the development of the agenda.
- Assisting the first-year senators on their transition to the executive board by scheduling one on one meetings to prepare for conferences and voting on the national level.

It's Cool to Code (Co-Founder), Durham, NC   *Fall 2018 - Summer 2019*
- Co-founded an organization designed for twelve fourth and fifth grade boys to teach basic coding and engineering skills
- Developed a curriculum for the course based on art and S.T.E.M. This course taught how to use the birdbrain microprocessor and drag-and-drop coding to control servos and LEDs.
- Led the students in projects that ranged from designing their own snake computer game to creating a rover that they that they could control wirelessly with tablets.
- Raised over $1000 from the Snellville community to fund the organization and keep it free and accessible regardless of income.

TECHNICAL SKILLS

Coding Languages: Proficient: Java, Python, HTML, CSS, JS(ES6), React; Intermediate: MATLAB,

Technologies: Anaconda, MobaXterm, Git, AutoCAD, Inventor, Fusion360, Tensorflow, Microsoft Office