Sruthi Kurada

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EDUCATION

Advanced Math and Science Academy Charter School

Marlborough, MA

GPA: 4.71/5.00 – Honor Roll

12th Grade, High School

Activities: Varsity Math Team - President, Cloud Computing Club - Co-President, Varsity Tennis Team, Karate Junior Black Belt Skills: Python – (Pytorch, TensorFlow, Keras), Java, Data Science, Machine Learning, iOS & Android Development Awards: Google Science Fair Top 100 International Semifinalist and Massachusetts Winner, Taco Bell Live Más Scholarship Winner, Coolidge Senator Scholarship Winner, NCWIT National Honorable Mention (Top 400), Massachusetts Winner

RESEARCH EXPERIENCE

Applied Audio Machine Learning Research

Littleton, MA

Data Science Research Lead

March 2018 - Current

Parkinson's Disease Diagnostic Classifier (2019 - Present):

- Developed a classifier that leverages patient voice data to diagnose Parkinson's Disease using a novel, generalizable feature extraction technique. The technology achieved 87% accuracy and outperformed current clinical diagnostic methods
- First authored a conference paper for presentation at the 2020 IEEE CHASE Conference (<u>bit.ly/pd-classification</u>) Generalizable Audio Classification Pipeline (2018 2019):
- Built a state-of-the-art Audio Classifier on the UrbanSound8k dataset that leveraged unique preprocessing and data augmentation approaches (>99% accuracy) – previously published papers only reported 74% accuracy
- Selected as Google Science Fair Top 100 International Semifinalist and Massachusetts Winner
- Published this research in The Columbia University Junior Science Journal (2019 Edition)

Bayes Mendel Lab at Harvard School of Public Health

Cambridge, MA

Computational Genomics Researcher

September 2020 - Current

• Developing a cancer prognostic model including many subtypes for accurate, efficient risk analysis.

MIT PRIMES Student Research at Biomedical Cybernetics Laboratory

Cambridge, MA

Computational Biology Researcher

January 2021 - Current

• Discovering the role of Ergothioneine on the mouse genome through its effect on disordered proteins.

WPI Data Science Institute

Worcester, MA

Summer Research Intern (Research Experience for Undergraduates)

May 2018 – October 2018

- Developed deep learning strategies that used Recurrent Neural Networks to handle missing data in patient healthcare records
- Presented research at 2018 IEEE MIT Undergraduate Research Technology Conference (bit.ly/missing-values-healthcare)

INDUSTRY EXPERIENCE & EXTRACURRICULAR ACTIVITIES

MetroHacks Cambridge, MA

MetroHacks EmpowHer Executive Director

September 2018 – Current

- Launched <u>EmpowHer</u> in 2020, a national computer science competition for high school girls grew the competition to include over 250 student participants and 85 mentors across the country during the COVID-19 pandemic
- Scaled MetroHacks, a non-profit organization dedicated to improving practical STEM education, across the entire East Coast
- Helped raise >\$100K through partnerships with several Fortune 500 companies including Microsoft and Staples

MITRE Bedford, MA

Innovation and Technology Intern

June 2019 – August 2020

- Predicting Video Conferencing Failure (Summer 2020): Increasing workplace productivity through developing an algorithm to predict video conferencing failure and providing alternative methods for collaboration
- Winner of the 2020 MITRE AI Challenge: Developed ML detection software to protect MITRE against phishing attacks
- Virtual Hallway Innovation Project (Summer 2019): Prototyped an employee identification system using Optical Character Recognition (OCR) on employee badges and facial recognition using live feed video data

FIRST Robotics Competition (FRC)

Devens, MA

Outreach Team Lead

November 2018 - June 2019

- Led development of the Steam Splash educational platform to teach STEM to elementary students (<u>steamsplash.org</u>).
- Winner of New England District Championship (Chairman's award) Invited to 2019 Global Championship