

BEULAH KARROLLA

+1(614)-374-9793 | beulah.karrolla@gmail.com
[GitHub](#) | [Personal Website](#) | [LinkedIn](#)

Seeking an engineering position that utilizes my skills in neural networks, machine learning, and working with large data.

EDUCATION

Master of Engineering in Computer Science August 2022 – May 2024 (expected)
The Ohio State University CGPA: 3.34/4.0

Research Advisor: Dr. Eric Fosler-Lussier

Coursework: Neural Methods in Speech Processing, Advanced Artificial Intelligence, Machine Learning, Algorithms, Data Mining, Computer Vision, High Performance Deep Learning, Foundations of Programming Languages.

Bachelor of Engineering in Computer Science September 2022
Chaitanya Bharathi Institute of Technology(A), India. CGPA: 8.58/10

Research Project: Early Detection of Cancer using Deep Learning Approach

Coursework: Deep Learning, Machine Learning, Artificial Intelligence, Data Science and Big Data Analytics, Operating Systems, Data Structures, Database Management System, Natural Language Processing, Soft Computing, Object Oriented Programming, Cloud Computing, Linux Programming.

RESEARCH PORTFOLIO

- V. Sunder, B. Karrolla, E. Fosler-Lussier. End-to-End real time tracking of children's reading with pointer network. IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), 2024. [\[Paper\]](#)
- B. Karrolla, V. Sunder, E. Fosler-Lussier. Attention-Based Models for Real-Time Tracking in Children's Reading Assessment, Young Female Researchers in Speech Workshop at INTERSPEECH, 2023, Dublin, Ireland. Poster Presentation. [\[Poster\]](#)
- B. Karrolla, S. Chennoju, S. Kothuru. Cross-Lingual Customer Relationship Management Application, Smart India Hackathon 2019, Indore, India. Best Research Project.
- B. Karrolla. Neural Style Transfer: An artistic approach, SUDHEE 2018, Hyderabad, India. Research Presentation.

TECHNICAL SKILLS

- | | |
|------------------------------|--|
| - Programming Languages | Python, C, Java |
| - Web Technologies | JavaScript, HTML, CSS, PostgreSQL, SQLAlchemy, Bootstrap |
| - Acquainted Python Packages | PyTorch, NumPy, pandas, SciPy, sklearn, Matplotlib |
| - Domains | Speech Processing, NLP, Web and Android Development |

EXPERIENCE

Graduate Research Associate Current Position

The Ohio State University: Speech and Language Technologies Lab

- Working on building a real time light-weight Speech Classifier for Wake Word detection.
- Experimenting the integration of various foundational models (for Voice activity Detection, Speech recognition) for achieving 100% Speech-to-Gesture alignment at ICICLE AI Institute.
- Validated Tacotron2 as an attention-based model for building a dynamic speech assessment tool.
- Employed machine learning techniques for language identification and discovering language dominance patterns in Code-Switched speech data.

Graduate Teaching Associate January 2023 – May 2023

The Ohio State University: Computer Science and Engineering

- Assisted Dr. Raef Bassily in teaching a Foundational Computer Science course, Algorithms.
- Graded approximately 60 students' assignments per semester and held weekly office hours.

Application Developer
Project Developer Intern

August 2020 – August 2022
January 2020 – July 2020

Oracle Corporation: Textura Payment Management (TPM-CEGBU)

- As a full stack developer, leveraged my expertise in both front-end and back-end technologies to create comprehensive solutions for the TPM web application.
- Developed a 'Deadlines and Responses' tracking system for managing the workflow and payments across various levels in the organizational hierarchy of Construction Firms.
- Engineered a Date-Time module adaptable for multiple time zones, elevating global utility by 23%.

Android Developer Intern

June 2019 – July 2019

Sporks Technology Solutions, Hyderabad, India

- Received comprehensive training on Object-Oriented Programming in Java and self-descriptive XML for the development of Android applications.
- Devised a real time multilingual chat application, minimizing communication barriers by over 50%.

PROFESSIONAL ACTIVITIES

- Student Immigration Advisor
Office of International Affairs – The Ohio State University
- Graduate Office Student Assistant
Department of Mathematics – The Ohio State University
- Student Participant Social Cause
Experience for Good, Code for Good, Winning Women – J.P. Morgan Chase & Co.

July 2023 – August 2023

August 2022 – December 2022

2019 – 2022

HONORS

[Young Female Researcher in Speech 2023](#) – Dublin, Ireland.

Selected as the exclusive U.S. delegate for research abstract presentation in the field of speech, showcasing my dedication and expertise as a young female researcher.

[Smart India Hackathon 2019](#) – Indore, India.

Led the team to victory and played a pivotal role in the development of the winning solution for Ministry of Small and Medium-Scale Enterprises (MSME) test case during an intense 48-hour hackathon.