Moukthika Nellutla

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Education

University of Illinois Urbana-Champaign Champaign, IL
B.S. in Computer Science and Bioengineering *2024 – 2028*
- Relevant Coursework: Data Structures, Discrete Structures, Calculus III, Linear Algebra, Molecular & Cellular Biology, Intro to Programming I and II

Experience

Moffitt Cancer Center Tampa, FL
Machine Learning Undergraduate Research Trainee *May 2025 – Present*
- Incorporated NLP and ML to improve patient-clinical trial matching using Deepsix AI.
- Evaluated matching algorithms for potential integration in healthcare informatics.

NeuroTech @ UIUC - CortexCodex Urbana, IL
Artificial Intelligence Researcher *Sept 2024 – Present*
- Developing a machine learning model using Python and Colab to interpret diverse EEG datasets.
- Reviewed and summarized neuroscience research papers to make them accessible to team members.
- Analyzed EEG peaks across channels to correlate brain activity with cognitive states.
- Collaborating to build a model analyzing EEG responses to music for future publication.

Women in Engineering, UIUC Urbana, IL
Ambassador *Jan 2025 – Present*
- Promoted engineering to 1000+ newly admitted students identifying as women and nonbinary.
- Led interactive Q&A panels and facilitated networking events for prospective Grainger College students.

Siebel School of Computing and Data Science Urbana, IL
CS124 Course Assistant *Jan 2025 – Present*
- Tutored a 300-500 student cohort in Java, assisting with object-oriented programming, recursion, and debugging.
- Created a supportive environment for students learning computer science fundamentals.

Projects

Book Recommendation System Github
Python, React, Machine Learning *2025*
- Built a machine learning-powered recommendation engine providing personalized book suggestions.
- Designed the full-stack web interface using React and Flask, with REST API endpoints.
- Utilized collaborative filtering and NLP for content-based recommendations.
- Incorporated React frameworks for the front-end of website.

Disease Outbreak Simulator Github
Python, TensorFlow, Deep Learning *2025*
- Developed a simulation model to predict and visualize disease spread using deep neural networks.
- Trained the model on synthetic and real-world epidemiological datasets to forecast outbreak progression.
- Implemented SEIR-based dynamics enhanced with learned parameters to improve accuracy.
- Visualized simulation results and intervention outcomes using matplotlib and seaborn.

Technical Skills

- **Languages:** Python, Java, JavaScript, HTML/CSS, R, MATLAB
- **Tools/Frameworks:** React, Flask, Git, Google Colab, Jupyter, VS Code
- **Libraries:** NumPy, pandas, scikit-learn, TensorFlow
- **Interests:** Web Scraping, Healthcare Informatics, Computational Data Analysis