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EDUCATION

MSc Computer Science, Brooklyn College, CUNY — Expected Graduation: 2025

• **Relevant Coursework:** Discrete Structures, Data Science: Machine learning, Deep Learning, NLP, Big Data, Data Management, Data Structures, Java, python, C, Linear Algebra, Operating Systems, Software Development, Advanced C++ Programming, Analysis of Algorithms and Cloud Computing

Computer Science, BMCC, CUNY — June 2023 -Dec 2023

MSc Geoscience Informatics, Emporia State University, ESU — Jan 2022 – June 2022

ONGOING RESEARCH – SECURITY ON AUTOMOTIVE DRIVING

Brooklyn College, Brooklyn, NY — Present

Security on Automotive Driving: *This dynamic research initiative aims to set new standards in the security and efficiency of autonomous vehicle systems, blending cutting-edge data analysis, innovative security strategies, and collaborative ingenuity.*

- **Reviewed Nuscence Datasets:** Pioneered in-depth analysis and validation of Nuscene datasets (Radar 3D/ limited 4D, Lidar, Camera and fusion) to significantly enhance the accuracy and reliability of autonomous vehicle systems.
- **Innovative Security Protocols:** Engineered advanced security measures to fortify automotive systems against potential cyber threats, ensuring robust and secure autonomous driving solutions.
- **Collaborative Research:** Worked alongside a team of experts to evaluate and improve the integration of various sensor technologies, contributing to the development of cutting-edge automotive security solutions.
- **Technical Proficiency:** Leveraged expertise in Python Conda environment, Google Colab, UNIX CLI, and Python libraries (pandas, Numpy, Matplotlib, PyTorch, Spark) to propel research and development efforts.

INTERNSHIP

Evisions, Califonia, LA — Present

• **Engineering:** Built and optimized data pipelines, enhancing data flow efficiency by 30%. Worked with SQL, Python

- Collaborating in agile teams to develop responsive web applications using React, and Django. Engaged in sprint planning, daily stand-ups, and retrospectives
- Developed interactive dashboards providing critical business insights
- Contributed to a web application used by over 1,000 users, enhancing user experience.
- Developed and debugged software in C++, Java, Python, and JavaScript. Participated in code reviews and ensured high-quality deliverables.
- Skilled Used: Back End Dev, System Design, Object- Oriented Programming, UNIX CLI, AWS ES KMS, Git, C++, JS & Python (pandas, Numpy, Pyplot, Matplotlib, pyTorch & Spark)

INTERNSHIP

Radical X internship, New York, NY — Present

Cosmo Chat Application

- Optimized for Scalability: Ensured the application architecture supports future growth and scalability, allowing for increased user load without compromising
- Designed and Implemented UX/UI: Developed an intuitive and engaging user interface for the Rex AI chatbot using REST APIs, Node.js, React, HTML, and CSS, significantly improving user interaction and satisfaction.
- Streamlined communication: Enabled seamless, real-time communication between users and chatbot, leveraging modern web technologies to ensure fast reliable.
  • Enhanced Backend with OpenAI Integration: Integrated OpenAI's advanced capabilities into the backend, resulting in a more responsive and intelligent chatbot experience

PROJECTS

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Data Analysis: earthquake

- **NLP & Team Leadership:** Led a 5-member team in an NLP research project, preprocessing a 50k-row dataset with TFIDF and custom feature engineering for model training.
- Machine Learning Models: Trained and tuned logistic regression, SVM, KNN, Random Forest, and XGBoost models for classification tasks.
- • Deep Learning & Autoencoders: Developed an autoencoder in PyTorch to reconstruct one-hot encoded vectors, achieving precise data reconstruction. Optimized training with Adam optimizer and MSE loss, reducing reconstruction loss significantly over 1000 epochs.
- Model Development: Designed a 3-dimensional latent space autoencoder, effectively compressing and reconstructing data with high fidelity. Converted outputs to binary values, demonstrating strong neural network skills.

Miscellaneous Web Scrapping Projects | Python, Beautiful Soup, Newspaper3k Jan. 2024 - May 24

- Decision Tree, https://git.io
- Prediction Analysis, https://git.io
- Spam classifier, https://git.io

Miscellaneous Web based Data visualization | Python, Kaggle datasets Jan. 2024 - May 24

Miscellaneous Machine Learning Projects | Python, Spyder, scikit-learn, PyTorch Jan. 2024 - May 24

- Achieved grades of 100% or higher (with extra credit) on projects from my Machine Learning Class covering Regression, Classification, Clustering, Dimension Reduction & Deep Learning algorithms/techniques
- Libraries used: pandas, NumPy, scikit-learn, PyTorch, seaborn, matplotlib, BeautifulSoup

SOFTWARE DEVELOPEMNT PROJECTS

Lost and found website, https://git.io

- Developed a platform using PHP, MySQL, JS, CSS, and HTML to facilitate communication and item retrieval.
- Achieved 50% faster content load and enhanced accessibility through inclusive design principles.

gym Ideas, https://git.io

- Designed and built a platform using JS, CSS, HTML, Mongo DB, for sharing workout routines.
- Improved content load time and accessibility for users.

Pizza Order System & Book Rental System, https://git.io

- Developed a cross-platform desktop application.
- Utilized JavaFX, CSS, Java, and MySQL for robust implementation.
- Prioritized accessibility through the implementation of inclusive design patterns.
- Employed UX and UI design, enhancing the overall user experience.

ACTIVITIES

BMCC Computer-Sci Club, Manhattan NY June 2023– Dec 2023

Brooklyn College, Computer-Sci Club, Brooklyn, NY

Member

- Participate in weekly workshops and events with industry professionals that introduces students to fields in CS.
- Collaborated with industry professionals to provide valuable insights and learning opportunities.

ADDITIONAL EXPERIENCE

Math Tutor/Emporia University, ***SSS TRIO,*** Emporia, KS January 2022 – December 2019