HARSHITA CHADHA
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EDUCATION

George Washington University - Washington, D.C.
Master of Science, Computer Science - 2024 **(GPA - 4.0/4.0)**
Recipient of the School of Engineering and Applied Science's Dean's Scholarship for academic excellence. Research concentration in machine learning and AI. Taking courses in data science, software paradigms, data mining, algorithms, etc.

GGSIPU University - New Delhi, India
Bachelor of Technology, Computer Science and Engineering - 2022 **(GPA - 9.5/10.0)**
Placed in the top 5% of the cohort. Took courses in data science and analytics, statistics, mathematics, AI, machine learning, etc.

EXPERIENCE

Sanofi
Project Analyst Intern - FinOps Enhancement (July 2021 - January 2022)

- Accomplished cloud cost optimization for 260 internal customer accounts with mean expense reduction of 15%.
- Achieved a remarkable 40% reduction in resource retention decision-making time for internal customers by creating FinOps-oriented data dashboards using Microsoft Excel and Apptio's Cloudability tool by integrating large-scale cloud usage data from diverse sources (GCP, Azure, and AWS).
- Reviewed and translated external vendors' cloud management workflow into comprehensive technical reports.

MetFlux Research
Computer Vision Research Intern (June 2021 - August 2021)

- Reduced computational overhead by 30% during the successful translation of state-of-the-art (SOTA) research-based computer vision algorithms into lightweight app-integrable solutions for vitals (SpO2, heart rate) detection from facial and fingertip video feed (plethysmography).
- Obtained a mean detection error of 2% by analyzing and fine-tuning performance markers.

Solera Life Sciences
Data Science & Artificial Intelligence Intern (October 2020 - April 2021)

- Implemented and managed a dynamic cron job and associated database, resulting in automated data updates and increased operational efficiency by reducing manual data entry by 80%.
- Contributed to analytical problem-solving by conducting data scraping, wrangling, and warehousing of a substantial volume of pharmacological data, totaling over 10 million records, enabling efficient data analysis and insights generation.
- Achieved a testing accuracy of 85% by developing a speech recognizer using natural language processing techniques for the identification of Indian vernacular accents, leveraging a dataset of 10,000 audio samples, and completing the project within a tight deadline of 3 months.

SKILLS

Programming Languages - Python, R, C/C++, Java, SQL
Libraries - SciPy, NumPy, Pandas, Tensorflow, Keras, PyTorch, Skikit-learn

SELECTED PUBLICATIONS

- AI-based security protocols for IoT applications: A critical review (September 2022) [Journal Article]
- Analysis of User Inclination in Movie posters based on Color bias using transfer learning (December 2021) [Conference Article]
- A Novel Hybrid Clustering Based Transmission Protocol for Wireless Body Area Networks (July 2021) [Journal Article]

SELECTED PROJECTS

- **Recurrent Rhapsody**: A deep learning pipeline made up of a Recurrent Neural Network (RNN) based three-stage architecture for music generation (complementary lyrics-audio track combination) powered by text data from the million songs dataset and audio data from the lakh MIDI dataset. [Research Report] [Poster] [GitHub]
- **ScalNet7:** A deep learning pipeline for detection of Schizophrenia in adolescents using EEG signals. Constitutes EEG to Scalogram conversion algorithms and a 7-layer deep custom convolutional neural network. [Presentation] [GitHub]

LEADERSHIP EXPERIENCE

- **Founder, Meraki Lab (June 2020 - Present):** Established Meraki - A design studio to build deep learning/AI-based innovative technologies. Presently composed of a team of three building a low-cost hardware prototype for EEG measurement. The company portfolio constitutes multiple patron-funded projects at various stages in the patent pipeline. Visit the company website here.
- **Technical Lead, Google Developer Student Clubs (August 2020 - July 2021):** Planned inter-societal events and conducted hands-on workshops on AI, deep learning, data science, data analytics, etc to foster analytical thinking. Mentored newbie members and emphasized the importance of teamwork by building collaborative projects.