

Neha Nishikant

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EDUCATION

Carnegie Mellon University

December 2022

Masters of Science in Computer Science; Research Thesis

GPA: 4.05/4.0

Carnegie Mellon University

December 2021

Bachelor of Science in Computer Science

GPA: 3.82/4.0

Courses: Machine Learning with Large Datasets, Modern Regression, Functional Programming, Data Structures, Parallel Algorithms, Distributed Systems, Multimodal Machine Learning, Probability Theory

SKILLS

Languages: Python, Javascript/Typescript, GoLang, C, Java, Standard ML

Tools: PySpark, PyTorch, TensorFlow, ElasticSearch, Databricks

EXPERIENCE

Palantir Technologies: Forward Deployed Software Engineer | *US Department of VA* Jan 23 - Present

- Implemented matching algorithm to connect patients to healthcare centers optimized on availability, distance, and area of specialization
 - * Pruned/enhanced suggestions via LLM predictions by leveraging comments on historical appointments
 - * Introduced and integrated multiple LLMs to team-wide stack for any further use cases
- Developed an extensive suite of tools featuring various metrics on hospital performance around the country
- Performed analytics of Veteran wait times to identify and remove bottlenecks
- Improved telehealth demand in pilot cities across the U.S by 15%
 - * Identified telehealth-conducive situations via customer iteration and historical analysis
 - * Built customer-facing tool to highlight telehealth opportunities and other actionable data to physicians

Microsoft: Returning Software Engineer and Data Science Intern | May 21 - Aug 21

- Predicted meeting reschedule probability using models such as NNs and random forests with xgboost on Cortana
- Overcame data challenges including heavily unbalanced data using data augmentation and reweighting techniques
- Experimented with feature selection to preprocess training data
- Launched an automated data collection form to increase data quality and quantity for future model development

Microsoft: Software Engineer and Data Science Intern | May 20 - Aug 20

- Automated attendee management for existing meetings on Cortana's intelligent scheduler
- Built infrastructure to link meeting references across email threads by extracting times and attendee names
- Implemented functionality to recognize and integrate manually created Outlook meetings into automated scheduler

CMU Teaching Assistant: Mathematical Foundations of Computer Science | Fall 20, Fall 19

RESEARCH AND PROJECTS

CMU Master's Research Thesis *Explicit Question Decompositions for Multihop Question Answering* | Jan-Dec 22

- Created a new inference-only model MEX (Multihop EXplicit) grounded in iterative retrieval
- Showed that explicit question decompositions improve sparse models by 5-10% on benchmark datasets
- Investigated limitations of question decompositions for dense models
- Leveraged models such as FB Research's Dense Passage Retrieval for information retrieval from large corpora

Other Projects | <https://github.com/NehaNishikant>

- Multimodal Sarcasm: Added OCR 2D spatial embedding to Layout Aware Transformer for meme detection
- AvaDownloader: Trained double-column VGG model to score images on aesthetic value using transfer learning
- Rake and Compress: Built and compared imperative and functional implementation of tree-contraction algorithm
- Blood on Clocktower: Digitized social deduction game using WhatsApp chatbot