Reshmasai Malleedi

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EDUCATION

University of North Carolina at Chapel Hill | Chapel Hill, NC   Expected Graduation May 2023
B.S. Computer Science, B.S. Applied Mathematics, Data Science Minor   GPA: 3.43/4.00
Coursework: Data Structures, Algorithms, Object-Oriented Programming, Systems of Programming, Introduction to Web Development, Models of Languages and Computation, Linear Algebra, Discrete Mathematics, Differential Equations

SKILLS & TECHNICAL TOOLS

Languages: Java, Python, SQL, TypeScript, C, HTML/CSS, JavaScript, R
Technologies: Git, Apache Hadoop, pandas, NumPy, Scikit-learn, Tableau, Jupyter Notebook, LabVIEW, MATLAB

EXPERIENCE

Data Engineer Intern, *Wells Fargo*   *May 2022 – Aug 2022*
- Worked on data ingestion (from APIs and databases) and curation using ETL tools, SQL, and Apache Hadoop.
- Developed API based applications/scripts to support Tableau operations.
- Gained practical experience in building ETL solutions, data analysis and visualization, and shell script programming.
- Built interactive BI dashboards.
- Used DCI concepts to load raw and sanitized data.

Research Assistant, *Yan Research Lab*   *Dec 2020 – Aug 2021*
- Rewriting a LabVIEW program based on real-time particle tracking in optical trapping and sorting to incorporate different machine learning models; python-based.
- Explored deep learning models such as convolutional neural networks for particle tracking reconstruction.
- Assisted in developing control systems in the optics lab by coding presets for the shapes of different holograms used in nanoparticle trapping.
- Manipulated code to test phase and intensity modulations in performance against optical trapping methods.

LEADERSHIP

Undergraduate Teaching Assistant, *UNC Mathematics Department*   *Jan 2021 – Dec 2021*
- Assisted live lectures for Calculus 1 and Linear Algebra; answered students' questions in real-time.
- Held open office hours on a weekly basis and hosted review sessions before midterms and finals.
- Developed leadership skills by working with professors and other teaching assistants in creating and syncing the curriculum to offer the best help for students.

PROJECTS

**Personal Website | ** *HTML, CSS, JS*   *July 2022*
- Created personal website using HTML, CSS, JavaScript from scratch.

**Akari Game | ** *Java*   *April 2022*
- Recreated the Japanese children's game *Akari* with a GUI that allowed players to interactively play multiple different puzzle boards.
- Implemented the algorithm behind the game using JavaFX and the MVC framework.

Intrusion Detection Filter | *R, Jupyter Notebook*   *December 2021*
- Used R to analyze and model a simulated Local Area Network dataset from Lincoln Labs at MIT
- Utilized statistical machine learning methods and algorithms to develop an intrusion detection filter with 99.67% training accuracy on the test set.

Web Development and Project Manager, *DiamondHacks Hackathon*   *March 2020*
- Served as a project team leader and developed a website called *AppFix* which served as a platform for both customers and developers to interact more efficiently.
- Brainstormed and presented ideas to establish a new user interface.
- Incorporated HTML/CSS in the interactive website.