Jeffrey Wong

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EDUCATION

University at Buffalo: ***B.S. Computer Science*** *Expected: Winter 2025*

RELEVANT COURSEWORK

CSE 442: Software Engineering, CSE 487: Data Intensive Computing. CSE 474: Machine Learning, CSE 331: Algorithms and Complexity, CSE 305: Programming Languages.

TECHNICAL SKILLS

- **Languages**: Python, C, Java, Javascript, Scala
- **Frameworks/Technologies**: Git, React, Node JS, Pandas, NumPy, MongoDb

PROJECTS

Algorhythm | *React.js, Node.js,*

- Built dynamic, responsive front-end interfaces using ReactJS, ensuring smooth user interactions and seamless algorithm visualizations.
- Developed step-by-step visualizations for key algorithms such as BFS, DFS, Dijkstra's, and Binary Search, allowing users to explore and understand their operations in real-time.
- Created a secure backend with PHP to handle user authentication, including encrypted password storage and retrieval for account management.

Book Recommendation System | *Python, Pandas, Numpy, Matplotlib*

- Used matplotlib to visualize data cleaned using EDA processes such as dropping rows / generating missing data with pandas library in Python to for users to enjoy niche personalized content for informed purchases.
- Collaborated with a team of 3 employing Flask for backend operations, facilitating user interactions through web forms and NumPy for data handling and preprocessing.
- Utilized Machine learning algorithms such as Linear Regression for price predictions, K-Means Clustering for audiobook categorization, and Logistic Regression for generating recommendations

Point of Sale | *Scala*

- Designed and implemented a calculation engine using object-oriented programming techniques such as state patterns for computing final item prices, including discounts, sales tax, and bottle deposits, without using conditionals.
- Developed self-checkout software for a kiosk using a Graphical User Interface (GUI).
- Successfully delivered a user-friendly and efficient self-checkout kiosk software to enhance the user experience.

Dynamic Memory Allocator | C

- Developed a custom memory allocator in C, optimizing the "malloc" command by implementing a multipool architecture, which reduced memory fragmentation by 35%.
- Created system level operations that effectively handled large calls to memory requests ensuring it was allocated seamlessly.

EXPERIENCE

Logos Community Church *Flushing, New York*

Mathematics Teacher *June - August 2023*

- Collaborated with colleagues in a team to make real-world applications and problem-solving activities into lessons, ensuring SAT math concepts were relevant and relatable to students.