# **Benjamin Tate**

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#### **EDUCATION**

# George Mason University | Fairfax, VA

B.S. in Computer Science | GPA: 3.5/4.0

May 2024

Dean's List: Fall 2022, Spring 2023, Fall 2024

Relevant Courses: Data Structures, Algorithm Analysis, Databases, Data Mining, Systems Programming, Operating Systems

#### **TECHNICAL SKILLS**

**Programming Languages:** Java | JavaScript | Python | C | SQL | CSS | HTML | Go | MatLab **Applications:** Microsoft Visual Studio, git, vim/vi, Microsoft Excel, Docker, Android Studio

Libraries: Pandas, Scikit-Learn, Tensorflow, Keras, NumPy, Matplotlib

# **PROJECTS**

# MapReduce

- Designed a Go-based distributed framework inspired by Google's model to rapidly process data sets
- Utilized parallel processing and multithreading to reduce runtime by 3x
- Implemented system resilience and fault tolerance mechanisms, with a focus on scalability and performance

#### **DNS Client**

- Modeled DNS protocol to contact servers for designated website using Python
- Decoded IP addresses of servers from HTTP response to be displayed on screen

# **Linux Shell**

- Designed framework in C to manage concurrent processes, track program execution, handle file redirection, and compartmentalize essential process information
- Built Task Manager system shell capable of executing standard Linux commands and interactive built-in commands

#### PROFESSIONAL EXPERIENCE

# Systems Programming Teaching Assistant | George Mason University | Fairfax, VA Aug 2023 - Present

- Provided feedback and instruction for students working with assembly, data types on embedded systems, Linux system calls, memory representation, and concurrent processes
- Communicated with students and instructors to help improve the overall class structure

# Data Structures Teaching Assistant | George Mason University | Fairfax, VA

Jan 2023 - May 2023

- Communicated with educators to enhance documentation for projects utilizing dynamic arrays, linked lists, tree structures, and graphs
- Mentored over 50 students in implementing data structures and object-oriented programming techniques to elevate their comprehension of course content
- Offered comprehensive explanations to students regarding course concepts and project specifications

#### Chipotle | Team Member | McLean, VA

Apr 2021 - Aug 2021

 Collaborated with a dynamic team to maintain high-quality service standards and ensure prompt and precise fulfillment of customer needs