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SUMMARY OF QUALIFICATIONS

- Proficient in Java
- Familiar with HTML/CSS/JavaScript
- Prior experience with Amazon Web Services (AWS), Node.js, SQL, C, C++, and Python
- Knows how to use git and the Linux Command Line

EDUCATION:

University of Washington, Seattle, WA
Year: Junior, **Expected Graduation:** June 2019
Major: Computer Science, **Minor**: Entrepreneurship

Notable Coursework Completed: Data Structures/Parallelism, Systems Programming, Data Visualization, and Databases
Notable Coursework in Progress: Machine Learning and Artificial Intelligence

PROJECTS:

Airline Flight Booking Service Simulator, 2017
- Created a program that can search for cheap flights between cities and simulate paying for them
- Designed a SQL Server schema, added custom indexes and optimized SQL queries to reduce query time by 50%
- Utilized SQL Server's transaction settings to maintain consistency and integrity with concurrent users / updates
- Built parts of a Java front-end using the Java Database Connectivity (JDBC) API to interact with the SQL back-end

Online Chat Room and Voice Chat, 2017 (royvmathew.com/apps/messenger/readme.html)
- Created a chatroom application with peer-to-peer voice chat functionality
- Employed AWS, Node.js and Sockets.io to enable real-time text messaging for multiple concurrent users
- Utilized the WebRTC API to create peer-to-peer connections for audio calling with a success rate of 70%
- Spent over 5 weeks on implementation of text-sending and peer-to-peer signaling protocols

Chess Bot, 2016
- Built the backend of a chess bot which calculates the next best move for any board position in chess
- Implemented a combination of AI algorithms such as minimax and Alpha-Beta pruning to calculate the next move
- Optimized backend code for parallelization to utilize a Google Compute Engine's 32 cores
- Enhanced program efficiency to the point where it could calculate 8 moves ahead in under 1 second

News Article Summarizer, 2016 (royvmathew.com/apps/article_summarizer/readme.html)
- Built a web application that takes the text of an article and strips away its unimportant sentences
- Designed an efficient summarizing algorithm with JavaScript based on word frequency and sentence structure
- Required knowledge of data structures (i.e. heaps, linked-lists) and sorting algorithms to enable efficient text processing

LEADERSHIP EXPERIENCE:

ASUW Senator, 2015 - 2016
- Elected as one of a few select representatives from the UW student body
- Debated and negotiated weekly on student written legislation to improve the lives of students at UW

PSCSTA Programming Contest, 2015
- Won 3rd in a division where over 34 teams competed
- Managed a team and delegated tasks efficiently despite the team's lack of competition experience

OTHER EXPERIENCE:

UW Housing and Food Services Cashier, December 2016- June 2017
- Works as a cashier for the student cafeteria during lunch rush hour
- Requires the ability to multitask under time-pressure