Uday Mahajan

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Class Standing: Junior

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GitHub: https://github.com/udaymahajan242
Interested in: Summer & Fall Internships 2018

Education

University of Washington — Seattle, WA
Bachelor's of Science in Computer Engineering — *Mar. 2017 – Jun. 2019 (Expected)*

Pierce College — Lakewood, WA
Associate's of Science in Engineering (Academic Honors) — *Jan. 2015 – Mar. 2017*

Projects

- **Chess Bots**: Implemented several (graph/tree) and combinational game theory algorithms like Mini-max, Alpha-Beta Pruning, and Jamboree Searcher (both sequential and parallel) for writing various Chess bots in Java.
- **Scrabble with Graphical User Interface (Personal Project)**: Implemented a dual player Scrabble game in Java from scratch using the Win-Builder tool in Eclipse as a self-project.
- **Zip**: Implemented various worklists like ListFIFOQueue, ArrayStack, CircularArrayFIFOQueue, MinHeap, and dictionaries such as HashTrieMap and HashTrieSet for a program to compress files in zip format using the Huffman Encoding and LZ77 compression algorithms.
- **uMessage**: Implemented data structures such as MoveToFrontList, AVLTree, ChainingHashTable using Java's ADT Dictionary and sorting algorithms like QuickSort and TopKSort to drive word suggestion, spelling correction and auto-completion in the uMessage chat application, similar to the ones used in smart phones
- **Grep in Java**: Developed a context-free grammar for regular expressions and implemented NFA (non deterministic finite automaton) for a Grep implementation in Java that searches for matches of a regular expression in a document.

Experience

Engineering Society at Pierce College — Puyallup, WA
Vice President — *Sept 2015 - Dec 2016*

• Co-founded an engineering club at Pierce College to promote interest in the field of engineering through demonstrations and building projects. Coordinated club meetings and arranged materials needed to build projects. Assembled a quad copter with a camera for Pierce College by using an online guide and online-bought building materials like frame, speed controllers, propellers, motor, wires and programming cards.

Pierce College Tutoring Center — Lakewood, WA
Professional and Mentor Tutor — *Sep 2016 - Mar 2017*

• Managed and mentored a team of five to six peer tutors, supervised the tutor's responsibilities and facilitated tutor meetings based on experiential exercises, introspection, conversations. Also led a one-on one 50-minute weekly tutoring sessions to help students with collegiate level programming, mathematics and chemistry.

Peer Tutor — *Sep 2015 - Sep 2016*

• Provided one-on-one assistance to fellow students across collegiate level math, physics, chemistry and economics and led weekly interactive and intensive practice sessions related to Collegiate Mathematics for a group of students.

Undergraduate Coursework

- **Completed**: *Data Structures and Parallelism, Hardware & Software Interface, Foundations of Computing I (Discrete Math), System and Software Tools, Introductory Java Programming I & II, Introduction to Signal Conditioning, Foundations of Computing II (Discrete Probability), Introduction to Digital Design, Web Weaving*, Linear Algebra, Multivariate Calculus, Differential Equations, Calculus with Analytic Geometry, Advanced Technical Writing, Computer Programming in Python
- **In Progress**: *Systems Programming, Software Design Implementation, Design of Circuits and Systems, Android N Programming(Self Taught- Udemy)*

Technical Skills

- ***Programming Languages***:
  Java, C, Python, Unix, JavaScript, LaTeX, CSS, HTML 5.1, SQL, PHP, Git Version Control, Verilog.