# Levon Kalantarian

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#### **EDUCATION**

University of Texas at Dallas, Erik Jonsson School of Engineering and Computer Science

M.S., Computer Science, 2023

University of Texas at Dallas, School of Natural Sciences and Mathematics

B.S., double major in Neuroscience and Biology, 2010

#### Current coursework:

Web Programming Languages (CS 6314)

# Completed coursework:

Database Design (CS 6360), Algorithm Analysis and Data Structures (CS 5343), Linear Algebra (MATH 2418), Computer Architecture (CS 3340), Probability & Statis in CS/SE (CS 3341), Discrete Math for Computing II (CS 3305), Physics for Bioscience II (PHYS 3341), Statistics for Life Sciences (STAT 3332)

# **SKILLS**

Languages: Java, HTML/CSS, C, C++, Python, JavaScript, SQL, MIPS assembly, Some exposure to C#

Tools: UNIX shell scripting (bash), VS Code, Visual Studio, IntelliJ, Eclipse, XCode, WordPress, MySQL Workbench

# **PROJECTS**

## Word Puzzle Solver (Java)

Sept 2020 – Oct 2020

- Wrote a program to create and quickly solve different sized 2D puzzles of random characters.
- A dictionary .txt file is imported into a hash table and used via linear probing to check for all occurrences of words.
- The use of hash table lookups potentially decreases runtimes by orders of magnitude, especially for larger grids.
- Includes a regular and a more enhanced algorithm, showing the runtimes of each in milliseconds for comparison.

## Minimum Spanning Tree (Java)

Oct 2020 - Nov 2020

- A program that reads a .csv file containing a graph of interconnected cities and their distances, and prints the
  connections needed for the least road distance to connect all the cities.
- The input file can be modified or expanded while in adjacency list format to process varying amounts of data.
- Demonstrates the use of a hash table, disjoint set, and Kruskal's algorithm to generate a minimum spanning tree of all the nodes.

#### **EXPERIENCE**

#### **CS/Programming Instructor** (iCode LLC, Frisco, TX)

Aug 2019 – Mar 2020

- Taught classes including Python and Raspberry Pi for students from grades 3-12.
- Used Java and Python to teach foundational coding concepts.
- Helped students write and debug their own code in Python.
- Gave lessons on topics including IDEs, operating systems, CPUs, memory, and numbering systems.

#### Liability Claims Examiner (GEICO, Richardson, TX)

Dec 2016 - May 2017

- Handled auto insurance claims involving uncertainties or potential fraud.
- Gathered and analyzed various accident details and information from different sources before making liability decisions.

## **Research Technician II** (UT Southwestern Medical Center, Dallas, TX)

Aug 2011 - Nov 2016

- Performed sequencing and analysis of DNA samples in sequencing core for other UTSW labs.
- Explained sequencing analysis to customers when needed and helped them with troubleshooting, advised regarding sample preparation techniques and/or modifications to obtain optimal results.
- Utilized and did upkeep and 1<sup>st</sup> level troubleshooting of sequencing machines, computers and other instruments.
- Created calculator in MS Excel to quickly determine reagent proportions for varying scenarios to further streamline reagent mix preparation.
- Suggested new features/changes and provided testing/feedback to help improvement of sequencing core web app.