Dylan McGoldrick

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Education

Loyola Marymount University - LMU   August 2019 – May 2023
Undergraduate Student in Computer Science   *Los Angeles, California*
- Languages and Automata 1 (Languages) - Covered syntax and semantics of Java, Python, JavaScript, TypeScript, Swift, and C++.
- Languages and Automata 2 (Compilers) - Learned and wrote components of syntax-trees, grammars, and compilers.
- Algorithms - Executed algorithms such as A* for maze pathfinding, minimax with alpha-beta pruning, and breadth/depth first searches.
- Artificial Intelligence (AI) - Learned about logical inference, machine learning, deep learning, search trees, and neural networks.
- Data Structures - Implemented different ADTs such as linked lists, stacks, queues, heaps, hash tables, sets, trees, and graphs.
- Computer Systems Organization - Worked with machine instructions, assemblers and assembly languages and registers.
- Web App Development - Fetched APIs and built Web Apps with Firebase/Firestore deployed onto GitHub Pages.

Projects

MusicMates ReactJS, HTML, CSS   August 2022 - Present
https://github.com/izabela-ad/MusicMates
- A React App using the Spotify API to retrieve users top 50 tracks and artists.
- Led developments in a group of 3 and pulled data from over 1000+ data points.
- Presented Web App to 30+ students, professionals, and department heads.

VikingScript JavaScript, HTML, CSS   January - May 2022
https://github.com/Willr2001/VikingScript
- Deployed a user-friendly website to GitHub pages which shows off 7+ syntactic features.
- Created programming language and grammar with 30+ rules translatable to JavaScript.
- Programmed the 5 components to a basic compiler.

Neo4j Amazon Product Database Cypher   August - December 2022

- Loaded a Neo4j database using a 980MB Amazon data set with 1,000,000+ unique values.
- Created 200,000+ relationships between product and category nodes.
- Performed 5 specific queries such as finding the highest number of reviews, highest prices, product IDs, etc.

Movie List NowJavaScript, HTML, CSS   August - December 2021
https://github.com/Willr2001/MovieListNow
- Collaborated with a team of 4 to develop React App deployed with firebase hosting.
- Fetched from 250,000+ movie titles, release dates, and posters from a Movie API.
- Enabled Google authentication and stored 50+ past searches into a firestore database.

Languages and Automata 1 Java, Python, JavaScript, Swift   August - December 2021
https://github.com/dylmcgold/LanguagesAndAutomata
- Wrote various programs in 4 programming languages including Java, Python, JavaScript, and Swift.
- Engaged with generators, pointers, and streams that thousands of programmers implement everyday.
- Solved problems concerned with scope, destructuring, and currying that thousands of computers rely on.

IEEE LED / Arduino (Institute of Electrical and Electronics Engineers) C++   November 2019 - March 2020

- Revisited project Christmas of 2022 using 300 individually addressable LEDs.
- Wrapped around a Christmas tree running 5+ custom programs including a snake game and a fire.
- Cooperated with a team of 6+ in the IEEE club on a LED light strip project.
- Toured SpaceX facility with IEEE club members and interacted with 3 SpaceX engineers.

Skills

Programming Languages: Python, Java, C, C++, JavaScript, HTML, CSS, Swift, SQL, Assembly
Frameworks/Technologies: : Git, PostgreSQL, MongoDB, Neo4j LaTeX, React, Node.js, Pytorch