Jonathon Delemos

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EDUCATION

California State University, Sacramento - Sacramento, CA, United States   August 2023 - May 2025
Bachelor of Science in Computer Science
Relevant Courses: Data Structures and Algorithm Analysis, Object-Oriented Computer Graphics Programming, Computer Software Engineering, Database Management Systems , Computability Theory,

Sierra College – Rocklin, CA, United States   May 2023
Associate of Science in Computer Science & Associate of Natural Science
Relevant Courses: Programming Concepts and Methodology I/II, Discrete Structures for Computer Science, Machine Organization and Assembly Language, C and Object-Oriented Programming
Honors: Presidents Honors List (2020 & 2021 & 2022)

SKILLS

- **Programming Languages :** Java, C, Python, Shell Scripting, HTML, CSS, JavaScript, Fortran, Excel, VS Basic
- **Tools/Software**: Git, Linux, Vim, Blender, VS, Atom, React, Jira, MongoDB, GREP, CLI, Eclipse
- **Database Systems**: Oracle SQL, MySQL, PSQL, MongoDB

PROFESSIONAL EXPERIENCE

Director – Mathnasium, El Dorado Hills, United States   October 2023 – Present

- Develop and implement Mathnasium's curriculum: Create and update comprehensive lesson plans that align with educational standards, ensuring they cater to students' varying skill levels from basic arithmetic to advanced calculus.
- Tutor students individually and in groups: Provide personalized. and group instruction in mathematics, addressing specific student needs and covering topics from foundational math to advanced calculus, with a focus on improving understanding and performance. Assess and evaluate student abilities: Conduct thorough assessments to gauge students' mathematical proficiency, analyze results to identify strengths and weaknesses, and adjust instructional strategies to meet their learning needs.

Programming Consultant – Timothy J. Durbin Inc., United States   August 2024– Present

- Analyze algorithms: refine algorithms for groundwater modeling and analysis, ensuring they are efficient, accurate, and meet the specific needs of the engineering projects.
- Implement and test software solutions: Write, test, and optimize code for groundwater simulation and data analysis tools, ensuring that the software performs reliably under various conditions and handles large datasets effectively.
- Collaborate with engineers: Work closely with groundwater engineers to understand their requirements, integrate algorithms into existing systems, and provide technical support for algorithmic and data set challenges.

Data Structures and Algorithms/Linear Algebra Tutor - CSUS, United States   Jan 2024– May 2024

- Provide one-on-one and group tutoring: Offer personalized and group tutoring sessions for students in data structures, algorithms, and linear algebra, helping them understand complex concepts and improve their problem-solving skills.
- Develop and deliver instructional materials: Create and present instructional resources, including lecture notes, practice problems, and study guides, tailored to the needs of students in data structures, algorithms, and linear algebra courses.
- Assess and address student needs: Evaluate students' understanding through assessments and feedback, identify problems, and provide targeted explanations and practice to enhance their grasp of the material.

Project Work

Near Earth Object Working System (NeOWS) NASA API Program Development/Testing

- The purpose of this project was to create a program with an API call to capture and analyze objects passing by earth. By doing so, we aim to improve our ability to monitor, predict, and manage the risks associated with objects in nearby Earth orbits. The API captures data on the speed and spatial separation of asteroids, debris, and satellites relative to Earth. This information is used to assess potential collision risks, plan safe satellite operations, and analyze the impact of nearby objects.
- Orbital time: The program retrieves data on the time an object takes to complete an orbit and key parameters such as semi-major axis, eccentricity, and inclination. This helps track periodic satellite passes, create precise orbital models, and forecast future positions.
- Size and Mass: Data on the dimensions and mass of asteroids and debris is captured to estimate potential impact energy.