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 Algorithms, Object-Oriented Computer Graphics Programming, Software Engineering, Relational Database Management Systems, Computability Theory, Operating Systems

University of Pennsylvania – Philadelphia, PA, United States August 2025- Present
Masters of Science in Engineering in Artificial Intelligence
Relevant Courses: Artificial Intelligence, Natural Language Processing
Degree in Progress: *Expected Graduation Date, May 2027*

SKILLS

- **Programming Languages :** Java, Python, Shell Scripting, HTML, CSS, JavaScript, Excel, VS Basic, C
- **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 ! " #$%&% $($) # * +,$

- 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 student needs and covering topics from foundational math to advanced calculus, with a focus on improving knowledge and performance. Assess and evaluate student abilities: Conduct thorough assessments to gauge students' math proficiency, analyze results to identify strengths and weaknesses, and adjust instructional strategies to meet their needs.

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

- 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

Machine Learning - Computer vision - Target Moving Objects: Roboflow/yolov*8*

- The purpose of this project was to create a machine model that could differentiate between objects on screen. By doing so, we aim to improve our ability to monitor, predict, and manage the different aspects of business events. To train the model, I created my own custom dataset - this involved taking screenshots of the targets. After the dataset was collected, I created the annotations for the model to learn from. I used a set of one hundred data points.
- Roboflow: The next step was to train the model using Roboflow. The goal was to generate a model that could identify moving targets on screen. The model was then passed through model training to obtain best weights. Once the best weights were obtained, we used yoloV8 in a python script to utilize the model. Using this script, we could screenshot the activity on screenshot the activity on screen, pass it to the model, and determine the coordinates of the target.