JOSE MATA

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EDUCATION

Rice University | *Houston, TX* — Expected May 2024
Bachelor of Science in Computer Science
GPA: 3.56/4.00
Key Courses: Computational Thinking, Algorithmic Thinking, Intro to Program Design, Multivariable Calculus

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, C
Technologies: Git, LATEX, HTML/CSS, JUnit, React

PROJECTS

Find-a-Doctor Search Engine | Individual Project | *Dallas, TX* — Nov. 2021 – Present
- Built search engine for finding doctors with **HTML, CSS, JavaScript**. Can filter results using insurance provider and location proximity.
- Used the 1upHealth RESTAPI to make a custom provider search interface for patients to retrieve results for hospitals, clinics, doctors, and health systems that correspond to keywords specified by the user.

FEAT: Automated Test Set Generator | Rice University | *Houston, TX* — Aug. 2021 – Nov. 2021
- Created a framework in **Java** that constructs an expansive "base" set of tests for a function, given an inductive specification of the function parameters.

QR Code Generator | Rice University | *Houston, TX* — Aug. 2020 – Dec. 2020
- Implemented Reed-Solomon Error-Correction Encoding to generate a QR Code for blocks of inputted text with **Python**.
- Utilized a solution strategy of understanding the problem, breaking the issue into manageable components, designing computational pseudo-code, and implementing the solutions.

Stock Prediction | Rice University | *Houston, TX* — Aug. 2020 – Dec. 2020
- Employed a statistical model (Markov Chain) to train historical stock price data to predict its future performance with **Python**.
- Sectionalized, outlined, and executed a systematized approach to designing and implementing the source code and resolving bugs.

King and The Infamous Wizard | TEX-Prep Game Developing Competition | *Dallas, TX* — June 2017 – Sep. 2017
- Developed a 2D open-world ARPG with **Java** where the player navigates an environment of interactive puzzles, layered dungeons, and enemies utilizing the Java libGDX framework.
- Collaborated with and led a team of 5 members in designing, implementing, and troubleshooting source code and identifying, debugging, and resolving bugs; project won 1st place.

EXPERIENCE

UG Bioscience Lab Assistant | Rice University | *Houston, TX* — Aug. 2020 – Present
- Utilize laboratory equipment and synthetic ingredients to make food for genetically engineered flies. Perform regular vial and bottle changes.

General Science Teacher Assistant | Perot Museum of Nature and Science | *Dallas, TX* — May 2017 – Aug. 2018
- Facilitated interactive activities and seminars by collaborating with a team of 10 members for 80+ campers.
- Helped engage camper interest in science by designing activities relating to computer science, robotics, geology, and physics.

ACTIVITIES

Rice CS Club Member | Rice University | *Houston, TX* — Aug. 2020 – Present

Founder, President of Engineering Club | School of Science and Engineering Magnet (SEM) | *Dallas, TX* — Aug. 2018 – May 2020
Mission to promote excellence in mechanical, robotic, computer science education by enhancing student interest through collaborative engineering activities, design projects, and workshops.
- Led the organization and planning of club meeting agendas and times, member activities, and projects.
- Recruited and trained club officers and committee members to ensure the appointed members implemented duties.

STEM Outreach Program Organizer | SEM | *Dallas, TX* — Aug. 2019 – Nov. 2019
Aimed to provide low-income middle school girls the ability to engage with real-world applications of robotics, computer science, physics, and chemistry through engineering activities, workshops, and seminars.
- Constructed STEM curriculum for an event with 120+ attendees to engage and empower young women interested in STEM.
- Administrated program operations while communicating with a team of 17.