

Saubdiel Avalos

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Education

Duke University

B.S. Computer Science

GPA: 4.0

Aug. 2024–May 2028

- QuesrBridge Scholar; ColorStack; Duke Applied Machine Learning (Software Engineering); Society of Hispanic Professional Engineers; Hack Duke.

Work and Research Experience

Together4Tech Initiative

Founder; Full Stack Developer

Aug. 2024– Current

- Developed a STEM awareness web app using React.js and Node.js, including a blog system with MongoDB for storage and a YouTube player via the YouTube Data API.
- Ensured responsive design with CSS3 and Bootstrap for cross-device compatibility.

Rice University Genome Editing Research

Laboratory Assistant

May 2022–Aug. 2022

- Supported gene-editing therapy research for sickle cell disease, collaborating with a PhD candidate.
- Documented findings and performed statistical analyses using SPSS and Jupyter Notebooks, contributing actionable insights to advance therapeutic applications.
- Utilized R and MS Excel for data analysis and documentation, optimizing experimental workflows and identifying key insights to advance therapeutic applications.

Independent Gene Editing Research

First Author of Analytical Research

May 2023–Aug. 2024

- Conducted gene-editing case study analysis, exploring innovative alternatives for antivenom treatments.
- Leveraged Tableau (comparative) and Google Sheets for data analysis, and PubMed and Zotero for literature review to support evidence-based therapeutic proposals.

FANG

UI/UX Design Intern

Aug. 2021, 2022, 2023

- Designed publication content with Adobe Photoshop, Balfour's Encore, and Figma, capturing community stories with professional layouts.
- Enhanced collaboration with Canva and Trello, boosting team efficiency by tracking progress and creating progress reports.
- Improved distribution reach by 25%, enhancing engagement within the local community.

Activities

Microsoft HOLA

Fellow

Aug. 2024–Dec. 2024

- Participated in the SHPE & HOLA NC Fellowship Program, gaining mentorship and developing technical and leadership skills in computer science.

Texas Alliance for Minorities in Engineering

Lead of Research

Aug. 2022, 2023

- Directed project development with a team of Texas students, designing and presenting an engineering project to a professional board.
- Secured commendations at a leadership forum for enhancing STEM interest in rural communities.

Skills

Languages: Python, JavaScript/HTML/CSS, R, Bash Scripting, LaTeX

Frameworks and Libraries: Node.js, React.js

Tools: Git, Linux, Visual Studio, MongoDB, Figma, PyCharm, Jupyter, Microsoft Office, SPSS