https://sudoneoox.github.io

Diego A. Coronado

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Education

University of Houston Houston, TX

Bachelor of Science in Computer Science, Focus: Data Science *Aug. 2023 - May 2026*

Bachelor of Science in Mathematics, Focus: Data Science

Phi Beta Kappa Honor Society

Experience

Tutor Fellowship Jan. 2025 - Present

Ignite Teach For America *Remote*

- Provided virtual one-on-one tutoring to underserved students, helping accelerate their academic progress and foster educational equity
- Participated in comprehensive professional development sessions to enhance tutoring effectiveness and student engagement strategies
- Collaborated with Ignite Site Leaders and fellow tutors to implement personalized learning approaches and track student progress
- Engaged in regular feedback sessions and development activities to continuously improve tutoring effectiveness

Computational Biophysics Undergraduate Research May 2024 - Aug. 2024

CTBP Rice University *Houston, TX*

- Conducted research on cell differentiation of chromosome ensembles using minimal models
- Utilized Minimal Polymer Models to simulate and analyze Hi-C maps for multiple human cell lines
- Performed simulations of Chromosome 10 across various cell lines
- Developed pipelines for ensemble analysis using techniques such as PCA, t-SNE, and UMAP
- Collaborated with team members and presented findings in weekly meetings

Projects

University Approval System | *Django, SQL, React, Vite*

- Developed a web-based academic form submission and approval system using Django backend and React frontend
- Designed and built a hierarchical approval workflow system allowing for complex multi-step processes
- Created electronic signature functionality for PDF document generation and validation
- Built administrative interfaces for managing users, organizational units, and approval delegation
- Integrated with another team's system to expand service coverage across multiple organizational units

Medical Clinic Management System | *SQL, Node.js, React*

- Designed and implemented a detailed database schema for efficient management of medical clinic operations
- Developed a backend API using Node.js, Express, and Sequelize ORM, establishing complex relationships between entities
- Implemented user authentication and role-based access control for secure data management across different user roles
- Created API endpoints for core functionalities including user registration, appointment scheduling, and medical record management

Technical Skills

Languages: Python, SQL, R, C/C++, Javascript, HTML/CSS

Data Engineering: SQL, Pieplines, ETL/ELT, Data Modeling

Tools: Git, Linux, Shell