WILL CORCORAN

(360) 708-7616 / willryancorcoran@gmail.com / www.linkedin.com/in/wrcorcoran / wrcorcoran.github.io

EDUCATION

University of California, Santa Barbara (UCSB)   Expected: June 2025
Bachelor of Science (B.S.), Computer Science / GPA: 4.00
Regents Scholar (top 2% of admitted students) / College of Engineering Honors / Dean's Honors

RELEVANT COURSEWORK

Data Structures and Algorithms, Algorithms Engineering, Finite Automata, Matrices and Numerical Algorithms, Computer
  Architecture, Programming Languages and Compilers, Machine Learning, Artificial Intelligence, Object Oriented Design

SKILLS

Technical: C++, Python, JavaScript, TypeScript, Java, Rust, Scala, Nim, Bash/Scripting, React Native, Node.js, React, Next.js,
  Firebase, Git, GitHub, Markdown, Docker, Postgres, SQL, NoSQL, HTML/CSS, Django, Flask, Expo, Scikit-learn, PyTorch

RELEVANT EXPERIENCE

Dynamo Lab: Dynamic Networks, Student Researcher   Sep. 2023-Present
- Examining the Minimum Edge Set Perturbation problem to measure the robustness of graph neural networks as a counter to adversarial attacks.
- Evaluating the efficacy of multiple heuristic approaches, including homophily and degree, in maximizing edge additions while preserving model accuracy.
- Formulating a pipeline to streamline graph manipulation, GNN training and evaluation, while managing results using PyTorch Geometric, Numpy, Pandas, and Networkx.

UCSB, Data Structures and Algorithms, Undergraduate Learning Assistant   Apr. 2024-Present
- Conducted office hours for more than one hundred students, providing support regarding homework sets and exams.
- Graded assignments and administered exams, giving constructive feedback to benefit the education of students.
- Corresponded with the teaching team to ensure optimal student learning and manage course pace.

Haggard Labs, Fullstack Software Engineering Intern   June 2023-Sep. 2023
- Pioneered the launch of *Yopp,* a financial wealth aggregation application, with a focus on user experience and interface built with React Native and TypeScript.
- Optimized data writing and retrieval by up to 80% through NoSQL database management.
- Engineered secure serverless functions to retrieve financial data from external entities via RESTful APIs, leveraging Express.js, Node.js, and Firebase Cloud Functions (GCP).

PROJECTS

NcaamGNN   Dec. 2023-Present
- Innovating a proprietary weighted-edge link prediction algorithm for the margin of victory in college basketball games.
- Collecting, cleaning, and managing extensive data from 2010 onwards using Selenium and Pandas, while utilizing PyTorch Geometric to model and organize the data as a graph.
- Leveraging a sophisticated multi-layer Graph Neural Network model implemented in PyTorch.

FillerAI   Sep. 2023-Dec. 2023
- Developed an AI player for a strategy game using Minimax with Alpha-Beta pruning algorithms to make quality moves.
- Formulated specific mathematically-rigorous evaluation function to best quantify board states for AI player.
- Employed Next.js to develop a seamless and interactive environment, ensuring swift responsiveness from AI players.
- Harnessed GitHub Actions to merge development and production branches for a smooth distribution process.

Verde   Jan. 2023-Mar. 2023
- Crafted a social media app, *Verde,* with daily environmentally-focused challenges along with photos and user interaction.
- Contributed with a team of 3 others in an Agile development process using React Native, Expo, and Firebase.
- Awarded 1st place in UCSB's Google Developers' 2023 Solution Challenge.

LEADERSHIP EXPERIENCE

CRU, Real Life, Leadership Committee   Sep. 2023-Present
- Coordinating and planning weekly events, meetings, and dinners.

9929 Records, Independent Label Music Executive   Aug. 2021-Present
- Establishing three artists from the ground up using image and likeness, sound, and social media.
- Creating, producing, and publishing five albums and more than one hundred songs with over 450,000 streams.
- Analyzing trends and data to create a marketing plan for each release and performance.