JAKE MARTIN

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EDUCATION

University of California, Berkeley *Aug 2019 - May 2023*
Major: Computer Science
GPA: 3.60

PROGRAMMING LANGUAGES

Javascript, Typescript, Angular, ReactJS, HTML, CSS, SQL, Python, XG Boost, Numpy, Pandas, Scikit Learn, Golang, C, C++, Git

RELEVANT COURSEWORK

Data Structures and Programming Methodology, Computer Architecture, Multivariable Calculus, Physics for Engineers, Discrete Mathematics and Probability Theory, Linear Algebra, Sound and Music Computing, Computer Graphics, Computer Security, Artificial Intelligence, Database Systems, Python and Earth Science, Efficient Algorithms and Intractable Problems

EXPERIENCE

NextGen - Sydney Australia *October 2023 - Present*
Software Developer - Full-Time
- Utilized Angular, Javascript, HTML, CSS, SQL and NestJS to develop new full-stack features for the ApplyOnline platform as a member of the Product Innovation team, contributing directly to the development and maintenance of the platform that processes more than 90% of all mortgage applications in Australia.

UNSW Climate Change Research Center - Sydney, Australia *August 2024 - August 2025*
Research Officer - Casual
- Engineered a high-precision hail classification model using XGBoost, achieving 90% accuracy in detecting hail events across Australia from satellite and radar datasets.
- Leveraged historical and climate-projected satellite data to uncover 45-year trends in hailstorm frequency, intensity, and size, informing future climate risk assessments.
- Transformed large fragmented radar archives into streamlined, analysis-ready datasets, enhancing model efficiency and scalability for long-term climate monitoring.

Neubauer Agency - San Francisco, California *May 2023 - September 2023*
Web Developer - Internship
- Facilitated the development of custom websites for individual clients, aligning with their unique requirements and preferences.

PROJECTS

Encrypted File Sharing Program
- Developed and tested a secure file sharing program in Golang that utilizes multiple encryption techniques to ensure the confidentiality and integrity of shared files.

Dispersive Photon Mapping
- Implemented ray dispersion effects into on to an open source photon mapping library written in C++

INTERESTS

- Rowing (Won the U19 Australian National Rowing Championship in 2018), Computer Programming, Surfing, Fishing, Environmental Conservation