Colin FitzGerald

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EDUCATION

University of California, Berkeley
Bachelor of Arts in Economics, Minor in Data Science

August 2018 - May 2022
Berkeley, CA

- Coursework: Computational Structures in Data Science, Principles of Data Science, Linear Algebra and Differential Equations, Probability and Mathematical Statistics in Data Science, Econometrics.
- Extracurricular: Track and Field Student-Athlete. Team Captain, leading group through PAC-12 Championships while dedicated to a strict 25+ hours/week training regime and balancing a full course load.

Technical Skills

Languages: Python, R, Javascript, SQL, HTML/CSS
Frameworks & Libraries: Next.js, React, Material UI, Flask, Mapbox GL JS
Software & Technologies: Git, GCP, AWS, S3, EC2, Vector Databases, Mixpanel, Postman

Experience

RoBhat Labs
Full-Stack Engineer

Berkeley, CA
June 2022 - Present

- Built engineering solutions focused on improving mobile-app retention and engagement through use of data analysis and web development.
- Analyzed key product metrics using **Mixpanel** and generated reports highlighting user pain points, providing insights to the CEO for product improvements.
- Architected, designed and developed **Next.js** dashboards with a **Flask** server and **MySQL** database from the ground-up, serving as the proxy for mobile-app content ranking and resulting in a **5x** increase in aggregate notification engagement, with a **7%** increase in D1 Retention.
- Implemented a semantic-search application for operators, leveraging text embeddings and an external **Pinecone Database** for context-aware content retrieval; reduced manual labor by **25%** and prepped application for future scalability.
- **Managed** the performance of a team of **10** operators, ensuring content quality, accountability and holding weekly check-in meetings to monitor and assess operator progress.

CoreVest Finance
Data Science Intern

Irvine, CA
May 2021 - August 2021

- Architected an **ETL** pipeline to extract inputs from 1k+ PDF loan applications through an **OCR** API and Python **Regex** scripts into a structured data format, streamlining loan application data processing.
- Proposed and led a team of interns in building a random-forest model from data pipeline.
- Using bootstrapping techniques, improved initial model accuracy from 67% baseline to **99.7%** deliverable for production as co-pilot for loan underwriters, reducing manual labor by **20%**.
- Leveraged data analytics skills to build holistic customer personas for marketing team, leading to a **3x** increase in ad-campaign effectiveness.

Associated Students of the University of California
Data Analytics Intern

Berkeley, CA
January 2021 - January 2022

- Led collaboration between club members in planning, optimizing and allocating campus budget.
- Refined an Excel algorithm, ensuring data validation and implementing error protocols for budget distribution.
- Managed client disputes with a focus on fairness and empathy, prioritizing an understanding of both sides' needs.

Projects

Athletics Hub - https://athletics-hub-v1.vercel.app

- Developed a platform tailored for track and field fans, indexing all potential athletics competitors for Paris 2024 Olympics.
- Built features including live-updating results streams, programmatic calculation of top 3 competitors for each athlete and ability to create collections of favorite athletes.
- Rebuilt initial version based on user interviews, reducing data retrieval time and improving overall user experience.
- **Tech Stack:** NoSQL (MongoDB), Pinecone Database, Flask Server, Amazon EC2, and Next.js/Vercel.

Clubs

Open Project - https://openprojectberkeley.com

- Founding board member in creating a club dedicated to an inclusive environment to work on tech projects.
- Photographed and post-processed club-member headshots for website.