Colin FitzGerald

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EDUCATION

University of California, Berkeley   August 2018 - May 2022
Bachelor of Arts in Economics, Minor in Data Science   *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, Javascript, R, SQL, HTML/CSS, Bash
Frameworks & Libraries: Next.js, React, Material UI, Flask, FastAPI, SQLAlchemy, Mapbox GL JS
Software & Technologies: Kubernetes, Docker, Git, GCP, AWS, S3, EC2, Vector Databases, Mixpanel, Postman, Vim

Experience

Athelas   Mountain View, CA
Software Engineer   January 2024 - Present

- Built an EMR for physical therapists from the ground up using **FastAPI**, a **PostgreSQL** database on the backend, and **React** on the Frontend
- Conducted weekly product demos, testing feature implementation while understanding customer feedback
- Led decisions on choices of development frameworks and spearheaded the implementation of daily check-ins for more efficient and succint development cycles

RoBhat Labs   Berkeley, CA
Full-Stack Engineer   June 2022 - January 2024

- 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** content-ranking dashboards with a **Flask** server and **MySQL** database from the ground-up, driving a **7%** increase in D1 Retention and **5x** increase in aggregate notification engagement.
- 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   Irvine, CA
Data Science Intern   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.

Projects

Athletics Hub - https://athleticshub.one

- 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 average data fetching speed to 200ms
- **Tech Stack:** NoSQL (MongoDB), Pinecone Database, Flask Server, Amazon EC2, Next.js/Vercel.