Connor W. Fitch

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SKILLS

Languages: JavaScript, Python, SQL, R, HTML, CSS, LaTeX
Technologies: Node, Flask, React, Redux, Express, PostgreSQL, Sequelize, SQLAlchemy, AWS, Docker, NumPy, Pandas, Git
Practices: Object-Oriented Programming (OOP), Functional Programming, RESTful APIs, Agile/Scrum Methodologies, Test-Driven Development (TDD), Pair Programming

EDUCATION

App Academy   February 2022 - July 2022

Intensive Full-Stack Software Engineering Bootcamp with < 3% acceptance rate and over 1000 hours of classroom work

Bowdoin College   August 2017 - May 2021

B.A. in Mathematics and Economics, Summa Cum Laude, Phi Beta Kappa, **4.00 GPA**

Sample Coursework: Bayesian Statistics, Measure Theory & Stochastic Calculus, Econometrics, Number Theory & Cryptography, Algebraic Geometry, Graph Theory & Combinatorics, Behavioral Economics, Economics of Information
Awards: Almon Goodwin Prize, Phi Beta Kappa, Edward Sanford Hammond Mathematics Prize, Paul H. Douglass Economics Prize, Myrick Freeman Economics Prize, Sarah and James Bowdoin Scholar and Book Award (3x)

EXPERIENCE

Analyst Intern

Analysis Group   Summer 2020

- Cleaned, merged, and analyzed datasets of over 500,000 entries in R, Stata, and Excel
- Produced exhibits that illustrate and summarize the findings of the qualitative research and statistical tests
- Collaborated with team members to identify key analyses and audit each other's process and work product

Mathematics Researcher

University of Connecticut Markov Chains REU   Summer 2019

- Co-authored a paper on a non-linear random walk on connected graphs that is characterized by a bias parameter
- Wrote programs in Python and R to simulate millions of iterations of the Markov chains
- Analyzed long-term distributions as a function of the bias parameter to find closed-form solutions to multi-stationary distributions and points of bifurcation for different topologies of the connected graphs
- Presented the findings at the New England REU Conference, hosted at the University of Massachusetts

PROJECTS

Twodoist | *(JavaScript, Node, React, Redux, PostgreSQL, Express, HTML5, CSS3)*   live | github

- Designed intuitive user interfaces including dynamic desktop and mobile layouts via extensive CSS media queries, allowing a seamless user experience across a variety of devices
- Architected the Redux store to remain lightweight and efficient while still minimizing the number of calls to the backend API in order to provide the user with a snappy and responsive experience
- Incorporated functionality for multiple task management protocols, namely traditional categorization into checklists and interactive kanban project boards using a custom implementation of the React-Beautiful-DND library

Gemiddeld | *(JavaScript, Node, React, Redux, PostgreSQL, Express, HTML5, CSS3)*   live | github

- Engineered RESTful API backend in Node.js to accommodate core functionality for a Dutch-themed blogging site, including stories, likes, comments, and personal profile pages
- Implemented image upload to cloud storage via AWS S3 buckets, allowing users to include images with their stories while reducing server load and maintaining application scalability
- Applied customized design and functionality to the React-Quill library for a seamless user experience in rich text editing for authoring and revising posts

A Model for Ranking UEFA Clubs | *(Python, NumPy, Pandas, LaTeX)*   github

- Accumulated a database of over 4,000 soccer matches across the top leagues in Europe from the 2018-2019 season
- Generalized Google's PageRank algorithm to generate an indexed ranking of the top soccer clubs in UEFA
- Authored a paper detailing an introduction to Markov chains and graph theory, a proof of Perron-Frobenius Theorem, and the consequent application of the theorem to the ranking problem
- Utilized Python's NumPy and Pandas libraries to conduct sophisticated linear algebra operations