

Bobby Nixon

Full Stack Engineer · Quantitative Analyst

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Technical Skills

JavaScript, TypeScript, Node, Express, React, React Native, Redux, Socket.io, Sequelize, PostgreSQL, Heroku, Git, Mocha, Chai, Jasmine, HTML, CSS, R, Python, Mathematica, KDB+, Q, Data Science, Time Series Analysis, & \LaTeX

Projects

Hive Mind

[Source Code](#) · [Deployment](#)

A real-time, multi-player, cross-platform mobile application based on the New York Times Spelling Bee game developed in 3 weeks. Deployed on Heroku and designed with React Native, React Hooks, Redux, Express, PostgreSQL, and Socket.io. UI/UX with interactive data visualizations using React Native and D3. Back-end architecture written in TypeScript. Algorithm to generate solutions for all possible puzzles within 2 seconds created using bitmaps and linear algebra.

Sudoku

[Source Code](#) · [Deployment](#)

A mobile friendly progressive web app to play Sudoku created using TypeScript, React, and Redux. The motivation for this project was to learn more about backtracking algorithms and NP-Completeness.

Fullstack Records

[Source Code](#) · [Deployment](#)

A fully functional e-commerce web application developed in 9 days using React-Redux, Node, Express, PostgreSQL, Google OAuth, and Stripe integration. RESTful API routes enable a persistent shopping cart. Custom application logic synchronizes front-end orders with back-end inventory preventing users from placing orders on unavailable items. Time-Series data on user-product interactions tracked using custom algorithm.

Work Experience

Geneva Trading

Chicago, IL

Quantitative Analyst

June 2018 - August 2018

- Worked as part of the Principle Strategies team (GTM) focusing on statistical arbitrage and low latency market making.
- Utilized signal processing and ML techniques to create an algorithm for the detection and forecasting of patterned trading behavior.
- Utilized KDB+/Q to conduct research and analysis on time series data to identify signals used to inform trading strategies.

Kennedy For Illinois

Chicago, IL

Economic Policy Analyst/Data Scientist

June 2017 - October 2017

- Led team of four to produce robust analysis of pension liquidity/asset development and regressivity in the IL property tax system.
- Utilized Python to scrape and compile millions of data points on home sales and valuations and produced predictive model for public school student outcomes based on property tax data.

Deimos Asset Management LLC

New York, NY

Long/Short Equity Analyst

June 2016 - August 2016

- Conducted macro-economic and fundamental equity research for multiple portfolio managers at the fund.
- Utilized original and sell-side research to build M&A and DCF valuation models for select companies.
- Gained exposure to various trading strategies including global macro, FX, options, and index re-balancing arbitrage.

National Geographic Society

Washington, DC

Expedition Coordinator

August 2015 - September 2018

- Through effort with ongoing Aspen Institute High Seas Initiative the UN Secretary-General created a Special Envoy for the Ocean.
- Worked with Obama White House to draft executive order creating the Papahānaumokuākea Marine National Monument a 582,578 square mile area of land and sea now under permanent ecological protection.
- Utilized Pisces V submersible for research in deep-mesopelagic zone resulting in scientific discovery.

Education

Fullstack Academy

New York, NY

Full Stack Software Engineering Immersive

February 2020 - April 2020

Harvard University Extension School

Cambridge, MA

B.S. in Mathematics, Secondaries in Economics & Quantitative Analysis - GPA: 3.58

September 2016 - May 2019

Extracurricular Activity

Harvard Men's Rugby

Cambridge, MA

First team selection as scrumhalf, Ivy League

September 2016 - May 2019

- Led team to multiple Ivy League and National Championship Contests in 15's and 7's