

IAN GATLIN

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EDUCATION

Massachusetts Institute of Technology

Class of 2024

Candidate for B.S. in Computer Science and Engineering — GPA: 4.7/5.0

Cambridge, MA

Relevant Coursework: Software Performance Engineering (6.172/6.106), Operating System Engineering (6.82-8/6.1810), Design and Analysis of Algorithms (6.1220/6.046), Software Systems for Data Science (6.s079), Robotics: Science & Systems (6.141/6.4200)

EXPERIENCE

Kellis Lab at MIT CSAIL - HaploReg v5 & ReguloViz

May 2023 - Present

Genomics Software Developer

Cambridge, MA

- Rebuilt HaploReg, a research tool to investigate genome variants, for performance, visualization support, new data support, and an expanded feature set
- Developed ReguloViz, a new interactive visualization tool which allows genomics researchers to dynamically investigate genome variants based on their upstream and downstream interactions
- Designed this tool as a full stack application based on brainstorming sessions with my PI on top of a legacy database schema
- Authoring a paper for the pair of tools that will be submitted to the 2024 Nucleic Acids Research Database Issue

Pioneer Natural Resources - ML Alerts for Standpipe Pressure

May 2022 - August 2022

Data Engineer, Drilling Department

Dallas, TX

- Engineered efficient algorithms to identify and relate the drilling sub-states of a rig that performed 11 times faster than existing iterative methods
- Designed custom features by aggregating and crossing data channels in easily customizable code that can be quickly repurposed to solve other problems
- Applied wrapper methods to automate the optimal selection of weak features
- Deployed my successful random forest model with a state machine onto current drilling dashboards to save an estimated \$1,000,000+ annually from mitigated standpipe pressure related issues that my tool detected early

SKILLS

Programming

Python (Pandas, ROS), TypeScript (React), C, Regex, SQL

Services

Adobe Premiere Pro, PowerPoint

Other

Data Science & Analysis, Snowboarding, Windsurfing

PROJECTS

FifaBot

Winter 2023

- Deployed a rating and stat tracking system on Discord to measure the FIFA performance of fraternity members
- Linked databases containing players, duos, games, head-to-head, and duo games to server code
- Implemented sorting algorithms, and designed player/game objects and a mathematical ELO system

Evaluating the Performance of NFL Contracts - 6.s079 Final Project

Spring 2022

- Aggregated data from 100+ data frames from 4 data sources to evaluate the relationship between NFL player current and historical performance, salary, and team outcome
- Replicated findings that team record outcome is one of the most important factors to determine if teams will underpay or overpay for free agents in the future

LEADERSHIP & INVOLVEMENT

MIT Gordon Engineering Leadership Program, GEL 2

Spring 2022 - Present

Sigma Chi Fraternity, Risk Manager, Social Chair, Philanthropy Chair

February 2021 - Present

MIT Ring Committee, Committee Chair

Summer 2021 - Fall 2022

Varsity Football

Fall 2020 - Spring 2022

Varsity Track & Field

Winter 2020 - Spring 2022