

# Hollis Ma

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## Education

### Princeton University

Sep '18 – May '22 (Expected)

- Bachelor of Science in Engineering (B.S.E) in Computer Science CGPA: 3.4, CS GPA: 3.8
- Selected Coursework: Algorithms and Data Structures, Programming Systems, Computer System Design, Computer Graphics, Machine Learning, Economics and Computing, Theory of Computation, Probability and Stochastic Systems, Graph Theory, Advanced Linear Algebra, Advanced Vector Calculus, Honors Analysis

## Experience

### Software Development Research Intern | CABINET | PYTHON

Jun '20 – Present

- Currently using NLP to identify sets of related questions using named entity recognition and custom similarity comparisons with sentence embeddings (SpaCy)
- Tested completeness of related questions graph and optimized weights and runtime through multithreading, precomputing sentence embeddings, pretrained models, and automating tests and file outputs

### Software Engineer | MASSFLUX | JAVASCRIPT

Feb '20 – Apr '20

- Created a RESTful API, UI, Grafana dashboards, and hosted server to connect custom warehouse carts to a database to optimize warehouse workflow (InfluxDB, Docker, Node.js, Express)

### Co-founder | DAY ZERO | MERN STACK, PYTHON, AWS

May '19 – Jan '20

- Led team of 6 in design and creation of full stack meetup platform (MongoDB, Express, React, Redux, Node.js)
- Wrote 6000+ lines of code building a RESTful API, creating dozens of components, and managing state
- Developed algorithm to match users based on several weighted factors and wrote scripts to analyze/clean data

### Software Development Intern | ARTISAN DATA CONSULTING, INC. | JAVASCRIPT, PYTHON

Jun '19 – Aug '19

- Analyzed data and developed filters to create a dynamic visualization of donor retention (D3.js, React)
- Introduced admin functionality to platform by creating UI and interacting with database (Angular, Flask, SQLAlchemy)

## Projects

### Pac-Atac | 2.5D SHOOTER | THREE.JS, REACT

- Built a Pacman-themed 2.5D shooter with waves of enemies, powerups, leaderboard functionality, and HUDs
- Won "Best Gameplay Award" out of 36 graphics oriented projects

### MusicToMyEarz | MUSIC RATER | PYTHON, JAVASCRIPT

- Trained various machine learning models (random forests, decision trees, linear regression) on 200k+ songs from Spotify to estimate a song's popularity (NumPy, Scikit-Learn, Pandas)
- Designed endpoints and UI for webapp with user experience in mind (Flask)

### LearnMeCode | SOCIAL PLATFORM FOR NEW DEVS | JAVASCRIPT

- Developed and deployed a full stack application with RESTful API, authentication system, alert system, and a social media architecture with profiles, posts, comments, and ratings

## Skills

**Languages** Python, JavaScript, TypeScript, Java, C, Golang, HTML/CSS, SQL, L<sup>A</sup>T<sub>E</sub>X

**Technologies** Gatsby, GraphQL, React, Redux, Angular, Express, Node.js, Flask, MongoDB, InfluxDB, SQLAlchemy, Three.js, D3.js, PyQt5, NumPy, Pandas, Scikit-Learn, Docker, AWS, Git

## Awards

- **MIT Grand Hack:** Department of Veteran Affairs Award for personalized sleep recommendation app Aug '19
- **Eagle Scout:** Led 20+ people in designing and constructing a 600 sqft patio Sep '17
- **National AP Scholar:** Took 20 AP tests (9 self-studied) with an average of 4.7/5.0 Jun '17
- **National Merit Scholar:** Tested at top 1% of high school students Jun '17
- **Nominee for All-Eastern Band:** Played percussion at the state level with dozens of ensembles Apr '17