

# 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: 3.9
- Selected Coursework: Algorithms and Data Structures, Programming Systems, Principles of Computer System Design, Computer Graphics, Intro to Machine Learning, Economics and Computing, Theory of Computation, Probability and Stochastic Systems, Intro to Graph Theory, Advanced Linear Algebra, Honors Analysis

## Experience

### Software Engineer | MASSFLUX | JAVASCRIPT, PYTHON

Feb '20 – Present

- Currently working on creating RESTful API, UI, Grafana dashboards, and hosting server to connect custom cart to database to optimize warehouse workflow (InfluxDB, Node.js, Express)

### Computer Science Lab TA | PRINCETON CS DEPARTMENT | JAVA, C, ASSEMBLY

Sep '19 – Present

- Assisted students in COS226–Algorithms and Data Structures and COS217–Introduction to Programming Systems by debugging code, teaching essential computer science skills and concepts, and grading assignments and exams

### Co-founder | DAY ZERO | JAVASCRIPT, PYTHON

May '19 – Jan '20

- Led team of 5 in design and creation of full stack social media 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)
- Implemented a quadtree to speed up data point selection by up to 1000% (D3.js)
- Introduced admin functionality by creating/designing a UI and writing SQL queries (Angular, Flask, SQLAlchemy)

## Projects

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

- Built and designed a 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 | JAVASCRIPT, PYTHON

- 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, HTML, CSS)

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

- Developed and deployed a full stack application with authentication system, alert system, and a social media architecture with profiles, posts, comments, and ratings
- Implemented a RESTful API with state management (MongoDB, Express, React, Redux, Node.js)

## Skills

**Languages** Python, JavaScript, TypeScript, Java, C, Golang, HTML/CSS, SQL,  $\text{\LaTeX}$

**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 on the PSAT Jun '17
- **Nominee for All-Eastern Band:** Played percussion at the state level with dozens of ensembles Apr '17