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

Co-Director | HackPrinceton | Leadership *May '20 – Present*
- Leading team of 40 in planning IvyHacks (inter-collegiate hackathon) by organizing subteams and meetings, interviewing potential members, and communicating with various organizations

Computer Science Lab TA | Princeton CS Department | Java, C, Assembly *Sep '19 – Present*
- Assist students in COS226–Algorithms and Data Structures and COS217–Introduction to Programming Systems by helping debug, teaching essential computer science skills and concepts, and grading assignments and exams

Software Development Research Intern | Cabinet | Python *Jun '20 – Sep '20*
- Used NLP to identify sets of related questions using named entity recognition and custom similarity comparisons with sentence embeddings. (SpaCy, Python)
- Optimized runtime via multithreading, precomputed vectors, custom pipelines, and automated workflows
- Spearheaded SEO improvements that increased impressions by 28% in two weeks and patched security flaws

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 with 200+ registrations within a week
- Wrote 7000+ lines of code creating 30+ endpoints in a RESTful API, dozens of custom-designed components, secure authentication systems, and login integrations (MongoDB, Express, React, Redux, Node.js)
- Developed a matching algorithm and scripts to analyze/clean data that are run daily

Software Development Intern | Artisan Data Consulting, Inc. | JavaScript, Python *Jun '19 – Aug '19*
- Analyzed data and developed filters to create dynamic visualizations of donor retention (D3.js, React)
- Introduced admin functionality to platform by creating UI and interactions 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 on 200k+ songs from Spotify to estimate a song idea's popularity
- Designed webapp and endpoints with user experience in mind (NumPy, Pandas, Scikit-Learn, Flask)

Skills

Languages Python, JavaScript, TypeScript, Java, C, Golang, HTML/CSS, SQL, LaTeX
Technologies React, Redux, Angular, Express, Node.js, Gatsby, GraphQL, Flask, MongoDB, InfluxDB, SQLAlchemy, Three.js, D3.js, PyQt5, NumPy, Pandas, Scikit-Learn, SpaCy, NLTK, MixPanel, Docker, AWS, Git

Awards

- **MIT Grand Hack:** Department of Veteran Affair's 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*