

# HUGH HAN

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## EDUCATION

**Johns Hopkins University**  
M.S.E., Computer Science, '19  
focus in machine learning  
B.S., Computer Science, '18  
minor in applied mathematics

## RELEVANT COURSEWORK

### GRADUATE

Theoretical Computer Science  
Machine Learning  
Deep Learning  
Vision as Bayesian Inference  
Natural Language Processing  
Artificial Intelligence  
Parallel Programming

### UNDERGRADUATE

Real Analysis  
Introductory Probability Theory  
Introductory Statistics Theory  
Combinatorics & Graph Theory  
Operating Systems  
Computer Networks  
Compilers & Interpreters  
User Interfaces & Mobile Apps  
Web Development & Design

## SKILLS

### PROGRAMMING LANGUAGES

C/C++, Python, Java,  
JavaScript, Swift

### TOOLS & FRAMEWORKS

Flask, Django, React, XCode,  
Vim, Git, MATLAB, L<sup>A</sup>T<sub>E</sub>X

## HONORS & AWARDS


Feb '17 **2<sup>nd</sup> Place, Overall**  
*HopHacks*


Dec '16 **hackNY Fellow**  
*hackNY.org*


May '14 **Northrop Grumman Engineering Scholarship**  
*Northrop Grumman Corporation*


Mar '13 **USACO Silver Division**  
*USA Computing Olympiad*


## EXPERIENCE - INDUSTRY


 **Palantir** london, uk  
forward deployed engineer intern fall '18

 **Dropbox** san francisco, ca  
software engineer intern, *mypy* summer '18  
· Worked on `mypyc`, a Python-to-C compiler using `mypy` annotations.  
· Added support for iterators, nested functions, generator functions, and decorators.

 **Microsoft** redmond, wa  
software engineer intern, *azure database* fall '17  
· Built a pipeline to stream PostgreSQL server logs to Azure Monitor.

 **MongoDB** new york, ny  
software engineering intern, *distributed systems* summer '17  
· Asynchronized the automatic chunk-splitting operation for sharded collections.  
· Reduced duplicate work done and network calls made by `mongos` nodes.  
· Built non-deterministic concurrency test suites for MongoDB sharding commands.

 **Bloomberg LP** new york, ny  
financial software developer intern, *internal systems* summer '16  
· Extended a backend customer support routing service for Bloomberg Analytics.  
· Implemented features for the `ADSK<GO>` terminal function from the ground up.

 **Johns Hopkins Applied Physics Laboratory** laurel, md  
research analyst intern, *air & missile defense* summer '15  
· Increased the time performance of a weapon-tracking algorithm by over 10x.  
· Improved the statistical reliability of a radar simulator by over 1000x.  
· Built a self-optimizing Kalman filter & data visualization tool for threat data.

## EXPERIENCE - ACADEMIA

**Center for Language & Speech Processing** baltimore, md  
research assistant spring '17  
· Worked on machine learning research regarding Twitter location data.  
· Extended features for the open-source Carmen project.

**Johns Hopkins Department of Computer Science** baltimore, md  
teaching assistant fall '15 - spring '18  
Aided in lecture, led review sessions, and graded coursework for:  
[ fall '15 ] : CS 226, Data Structures,  
[ fall '16 ] : CS 463, Analysis of Algorithms.

## PROJECTS

**Nexus** | [devpost.com/software/nexus](https://devpost.com/software/nexus) [ Spark, Kafka, NLTK, neo4j, Elasticsearch, Flask, Angular ]  
Streams news articles in real-time, using a conditional random field to tag related entities and construct knowledge graphs. Hidden connections between businessmen, politicians, etc. are made visible in these knowledge graphs, which are made accessible via the Nexus API and web client.

**Semesterly** | [semester.ly](https://semester.ly) [ PostgreSQL, Django, React/Redux ]  
University course scheduling platform. 470,000+ unique timetables created, 4,800+ user accounts, and 1,900+ 30-day daily active users. Open-sourced in August '17, and currently supporting 8 universities across the US and Canada.