

# Ray Song

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## Education

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**Duke University** (Major GPA: 3.97/4.0, Cumulative: 3.90/4.0) May 2018

- Bachelor of Science in Computer Science, Minor in Economics
- Honors: *magna cum laude*, Dean's List with Distinction (2015-17)

## Work Experience

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**Software Engineer at Bloomberg LP**, New York, NY Jul 2018 – present

- Current team: Market Analysis – Analytical Interfaces
- Develop MADI, a platform that expedites complex statistical analysis across multiple asset classes
- **Technical keywords:** C++, Python, comdb2, CI/CD

**Software Engineering Intern at Bloomberg LP**, New York, NY Jun – Aug 2017

- Streamlined real-time auditing & reporting for Bloomberg Media Distribution by deploying middleware API
- Designed intelligent search parser to consolidate client requests and reduce computing overhead
- **Technical keywords:** Node.js, Express, Mocha.js, Elasticsearch

**Software Engineering Intern at Aqueti Cameras**, Chapel Hill, NC May – Aug 2016

- Automated network bandwidth evaluation to identify system bottleneck in 16-array gigapixel camera
- Optimized image processing by creating JsonBox app to compute SSD throughput across systems
- **Technical keywords:** C++, Socket/Network Programming, Bash, Unix/Linux

**Teaching Assistant at Duke Computer Science Department**, Durham, NC Jan 2016 – May 2017

**Software Engineering Intern at Riot Games**, Seoul, Korea Jun – Aug 2015

## Project Experience

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**Research – Artificial Intelligence and Machine Learning** (<https://github.com/yrsong15/ml-indep-research/>) Jun 2018

- Trained *Tensorflow* estimators to predict housing prices/wine quality with linear regression and random forest
- Implemented *reinforcement learning* algorithms that taught agent to reach goal in previously unknown game

**Project RAPID** (<https://github.com/yrsong15/DukeParkingAndroid/>) Dec 2016

- Co-authored *Android* app with *PostgreSQL* to display real-time parking lot openings around Duke campus

**Research – Computational Thinking** ([http://yrsong.com/docs/Song\\_Comp\\_Think.pdf](http://yrsong.com/docs/Song_Comp_Think.pdf)) Nov 2016

- Conducted study on tools, curricula, and impacts of K-12 CS education (Advisor: Owen Astrachan)

**HackDuke Organizing Committee** (<https://www.hackduke.org/>) Aug 2015 – Dec 2016

- Taught tutorials on *HTML/CSS*, *Rails*, *SQL*, and product design for 3,000+ entry-level hackers

## Leadership Experience

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**Army Sergeant at ROK CBRN Defense Command**, Republic of Korea Sep 2013 – Jun 2015

- Led battalion of 90+ personnel in decontamination operations, antiterrorist trainings, and combat exercises
- Awarded Recognition with Distinction by US 20<sup>th</sup> CBRNECOM CG during ROK-US combined exercise

**Resident Assistant at Giles Dorm, Duke East Campus**, Durham, NC Aug 2016 – May 2018

- Hosted events for 120+ first-years including social issue discussions and dinner with Nobel Laureates

## Skills / Interests

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**Debate:** National Representative in Bickel & Brewer Public Policy Forum; finished 3<sup>rd</sup> among 300+ teams

**Basketball:** Two-time state champion, co-captain of high school varsity team; ardent fan of Duke Basketball and NBA