

# David Li

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Gaithersburg, Maryland

## SUMMARY

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Currently looking for a entry-level software engineer position to apply my skills in, and gain additional experience with, machine learning software and techniques.

## EDUCATION

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**University of Maryland, College Park** Sep. 2015 - Dec. 2018  
B.S in Computer Science and Mathematics (Statistics)  
Magna Cum Laude, GPA: 3.98

## EXPERIENCE

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**UMD Graphics and Visual Informatics Laboratory** May 2018 - Dec. 2018  
*Undergraduate Research Assistant*

- Co-developed Geollery, a mixed reality social media platform featuring real-time user interaction.
- Developed real-time 3D reconstruction pipelines with two levels of details from Google Street View, OpenStreetMaps, and Google Maps.
- Incorporated Twitter and Yelp APIs to visualize geotagged social media.
- Wrote JavaScript, MySQL, and PHP code using libraries three.js for 3D development and Ratchet for WebSockets in PHP

**UMD Department of Mathematics** Sep. 2017 - Dec. 2017  
*Grader for MATH410 Advanced Calculus I*

- Assessed and provided feedback on mathematical proofs from homeworks and quizzes.

**UMD First-Year Innovation & Research Experience** Jan. 2017 - May 2017  
*Academic Peer Mentor for FIRE170 Phillips Virtual Culture*

- Mentored FIRE students

**UMD First-Year Innovation & Research Experience** Jan. 2016 - Dec. 2016  
*FIRE Student and Summer Fellow in Sustainability Analytics*

- Analyzed FAO and IUCN Red List data sets using R and summarized research insights.
- Used the rvest package to automate data collection from sources without public APIs.

## COURSE PROJECTS

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Machine Learning: Implemented and evaluated the performance of decision trees, k-nearest neighbors, perceptron, PCA, and a fully-connected neural network in Python.

Data Structures: Designed a hierarchical navigation back-end using variations of AVL binary tree and PM Quadtree data structures in Java. (MeeshQuest)

Computer Networks: Developed a application for overlay routing using link state routing and implemented commands such as *ping*, *traceroute*, and *sendmsg* with dynamic packet-splitting in Ruby.

## TECHNICAL SKILLS

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Projects: <https://github.com/dli7319>

Programming Languages: C, Java, Ruby, R

Web Development: JavaScript, PHP, MySQL