

# Justin Goodman

📍 College Park, MD

🐙 @jugoodma

</> [jugoodma.github.io](https://jugoodma.github.io)

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## Education

**University of Maryland**  
*College Park, MD*  
August 2016 – May 2020

B.S. Computer Science (Department Honors)  
B.S. Mathematics  
Honors College – *University Honors Program*  
GPA: 3.969  
Selected coursework:

|                             |                                       |
|-----------------------------|---------------------------------------|
| OOP I/II                    | Artificial Intelligence               |
| Intro to Systems            | Human-Computer Interaction            |
| Discrete Structures         | *Distributed Cloud-Based File Systems |
| Programming Languages       | Statistics                            |
| Algorithms (intro/advanced) | Advanced Calculus                     |
| Advanced Data Structures    | Computational Methods                 |

\* Graduate-level course

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## Teaching

**CMSC420**  
*University of Maryland*  
Spring 2020

(expected) ADVANCED DATA STRUCTURES  
Grading TA

**CMSC388L**  
*University of Maryland*  
Fall 2019

READINGS IN HCI RESEARCH  
STIC (Student Initiated Course) Co-Facilitator

**CMSC250**  
*University of Maryland*  
Spring 2018 – Fall 2019

DISCRETE STRUCTURES  
Head/Teaching TA (Spring 2019, Fall 2019)  
Teaching TA (Spring 2018, Fall 2018)

**CMSC131**  
*University of Maryland*  
Fall 2017

OBJECT-ORIENTED PROGRAMMING I  
Grading TA

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## Research

**Twitter Transparency**  
*University of Maryland*  
January – May 2019

(ongoing) In collaboration with SUPERGroup at the University of Chicago.  
Mentors: Dr. Michelle Mazurek, Dr. Blase Ur

**Big Data REU**  
*University of Chicago / IIT*  
*Chicago, IL*  
May – August 2019

BigDataX: From theory to practice in Big Data computing at eXtreme scales  
Mentor: Dr. Kyle Hale

- Worked on theoretical addressing space
- Other
- Other

**Conference Paper**  
*ICCV 2019*

**Interpretable and Controllable Audio-Visual Video Captioning**  
Yapeng Tian, Chenxiao Guan, Justin Goodman, Marc Moore, and Chenliang Xu  
*In Submission*, 2019. [[Early version](#)] [[Demo](#)]

**Poster**  
*CVPR 2019*

**Audio-Visual Interpretable and Controllable Video Captioning**  
Yapeng Tian, Chenxiao Guan, Justin Goodman, Marc Moore, and Chenliang Xu  
(paper accepted as poster)  
CVPR sight and sound workshop, 2019

**Computer Vision REU**  
*University of Rochester*  
*Rochester, NY*  
May – July 2018

Computational Methods for Music, Media, and Minds  
Mentor: Dr. Chenliang Xu

- Created novel Amazon MTurk interfaces to build three datasets for training computer vision models
- Earned Deans' Citation for Broadening Research Involvement

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## Industry

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**Web Development Full Time**  
*D3Corp*  
*Ocean City, MD*  
May – August 2017

- Collaborated with team to design and build websites for commercial enterprises
- Contributed to over 100 websites
- Learned advanced techniques for WordPress, Jekyll/Liquid, Linux server implementation/maintenance, Google Analytics/Tags, and Facebook Pixel

**Web Development Internship**  
*D3Corp*  
*Ocean City, MD*  
June – August 2016

- Collaborated with team to design webpages for commercial enterprises and increase visibility through search engine optimization
- Contributed to over 100 websites
- Learned how to use WordPress and content management systems for building websites

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## Projects

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*All projects available on GitHub. School projects available on request*

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| <b>Behavioral Research App</b><br><i>University of California</i><br><i>San Diego, CA</i><br>August 2017 | (on hold) Developed Android app for Behavioral Economics researchers at UCSD<br>Used Android Studio, along with Google Firebase Authentication/Database, and FitBit API to log participants' sleep time  |
| <b>Personal Home Linux Server</b><br><i>Salisbury, MD</i><br>June 2017                                   | (still maintained) Converted an old computer into a UNIX-based web server (Ubuntu Server, NGINX, PHP, MariaDB)<br>Currently hosting: <a href="http://ironprofessor.com">ironprofessor.com</a><br>Set up SSH key-based authentication and forced-HTTPS protocol<br>Migrated server to Raspberry Pi<br>Hooked up UPS – server sends text-message updates   |
| <b>DataLeague Hackathon</b><br><i>University of Maryland</i><br><i>College Park, MD</i><br>November 2016 | Placed 2 <sup>nd</sup> overall<br>Collaborators: Clifford Bakalian, James Gu<br>Designed a model for estimating the likelihood that an airborne illness will survive and affect a population<br>Integrated APIs from Weather Underground, Air Now AQI, Google Maps, and the US Census Bureau   |
| <b>Class Projects</b><br><i>University of Maryland</i>   | Wide array of projects including/involving: <ul style="list-style-type: none"><li>• Principles of OOP (Java)</li><li>• Systems (C)</li><li>• Lexing/Parsing (OCaml)</li><li>• Web Security (Ruby)</li><li>• AI (Python)</li><li>• User Interfaces (web)</li><li>• Advanced Data Structures<ul style="list-style-type: none"><li>– AVL Trees</li><li>– Patricia Tries</li><li>– KDTrees</li><li>– PRQuadTrees</li></ul></li></ul> |

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## Organizations

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|---|---|
| <b>Dept. of Computer Science Education Committee</b><br><i>University of Maryland</i><br><i>College Park, MD</i><br>Fall 2018 – Spring 2019 | Undergraduate representative            |
| <b>UMD Cycling Club</b><br><i>University of Maryland</i><br><i>College Park, MD</i>   | Marketing Coordinator (June – Dec 2017) |

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## Accomplishments

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**Best Undergraduate TA**  
*University of Maryland*  
*College Park, MD*  
Fall 2017 – Spring 2018

Selected by the Teaching Awards Committee  
Quote: *for his enthusiasm, dedication and openness. Several students noted that Justin was extremely well prepared for discussion sessions, with well designed problems and examples that illuminated difficult concepts.*

**Eagle Scout**  
*Salisbury, MD*  
August 2015

Project: cleared out overgrowth in 350ft × 10ft creek (mill race) at Furnace Town Living Heritage Museum. I try and check back each summer – the overgrowth is still gone!