

# Justin Goodman

📍 College Park, MD

📧 @jugoodma

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

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## Education

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**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: 3.940  
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

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**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

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**Twitter Transparency**  
*University of Maryland*  
January – October 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 addressing space theory in HExSA lab
- Created novel process dynamics visualization techniques

**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*

**Behavioral Research App**  
*University of California*  
*San Diego, CA*  
August 2017

(on hold) Developed Android app for Behavioral Economics researchers at UCSD  
Used Android Studio, along with Google Firebase Authentication/Database, and FitBit API to log participants' sleep time

**Personal Home Linux Server**  
*Salisbury, MD*  
June 2017

(still maintained) Converted an old computer into a UNIX-based web server (Ubuntu Server, NGINX, PHP, MariaDB)  
Currently hosting: [ironprofessor.com](http://ironprofessor.com)  
Set up SSH key-based authentication and forced-HTTPS protocol  
Migrated server to Raspberry Pi  
Hooked up UPS – server sends text-message updates

## DataLeague Hackathon

University of Maryland  
College Park, MD  
November 2016

Placed 2<sup>nd</sup> overall

Collaborators: Clifford Bakalian, James Gu

Designed a model for estimating the likelihood that an airborne illness will survive and affect a population

Integrated APIs from Weather Underground, Air Now AQI, Google Maps, and the US Census Bureau

## Class Projects

University of Maryland

Wide array of projects including/involving:

- Principles of OOP (Java)
- Systems (C)
- Lexing/Parsing (OCaml)
- Web Security (Ruby)
- AI (Python)
- User Interfaces (web)
- Advanced Data Structures
  - AVL Trees
  - Patricia Tries
  - KDTrees
  - PRQuadTrees

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## Organizations

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### Dept. of Computer Science Education Committee

University of Maryland  
College Park, MD  
Fall 2018 – Spring 2020

Undergraduate representative

### UMD Cycling Club

University of Maryland  
College Park, MD

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!