

# Justin Goodman

📍 College Park, MD

🐙 @jugoodma

</> justgood.dev

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## Education

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**University of Maryland**  
*College Park, MD*  
August 2020 – May 2021

M.S. Computer Science

GPA: 4.0

Coursework:

Empirical Research Methods

Decision-Making for Robotics

Wireless and Mobile Systems for the IoT

Advanced Computer Graphics

Computational Psycholinguistics

Independent Study – RF Localization

**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: 3.945

Magna Cum Laude

Selected coursework:

Advanced Algorithms

Artificial Intelligence

Advanced Data Structures

Human-Computer Interaction

Game Programming

\*Distributed Cloud-Based File Systems

Compilers

Statistics

Number Theory

Advanced Calculus

Linear Algebra

Numerical Computational Methods

Cryptology

Abstract Algebra

\* Graduate-level course

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## Teaching

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*Evaluations available upon request*

**CMSC389B**

*University of Maryland*  
Fall 2020 – Spring 2021

A TOUR OF PROGRAMMING LANGUAGES

STIC (Student Initiated Course) Co-Facilitator

<https://github.com/plstic>

**CMSC434**

*University of Maryland*  
Spring 2020

INTRODUCTION TO HUMAN-COMPUTER INTERACTION

Grading TA

**CMSC388L**

*University of Maryland*  
Fall 2019 – Spring 2020

READINGS IN HCI RESEARCH

STIC (Student Initiated Course) Co-Facilitator

**CMSC250**

*University of Maryland*  
Six Semesters

DISCRETE STRUCTURES

Head/Teaching TA (Spring 2019, Fall 2019, Fall 2020, Spring 2021)

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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**Master's Scholarly Work**  
*University of Maryland*  
Spring 2021

**Exploring Radio-Frequency Localization for Pedestrian Safety**  
Advisor: Dr. Nirupam Roy

**Undergraduate Thesis**  
*University of Maryland*  
Spring 2020

**'What Twitter Knows' Extension – Dataset Exploratory Analysis**  
Advisor: Dr. Michelle Mazurek

**Paper**  
*USENIX Security 2020*

**What Twitter Knows: Characterizing Ad Targeting Practices, User Perceptions, and Ad Explanations Through Users' Own Twitter Data**  
Miranda Wei, Madison Stamos, Sophie Veys, Nathan Reitingner, Justin Goodman, Margot Herman, Dorota Filipczuk, Ben Weinshel, Michelle L. Mazurek, Blase Ur  
29<sup>th</sup> USENIX Security Symposium, 2020

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

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

- Studied users' perceptions towards Twitter advertising
- Contributed to data collection and survey generation system

**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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### Software Engineer

*Bloomberg*

*New York, NY*

September 2021 – Present

- Collaborated with team to build out web server for content aggregation and presentation
- [developer.bloomberg.com](https://developer.bloomberg.com)

### Software Developer, Graduate

*Raytheon BBN Technologies*

*Arlington, VA*

June – August 2020

- Collaborated with team to enhance micro-service system registry
- Learned advanced SOA (service-oriented architecture) design, Docker, Kubernetes, Agile software development, and Node.js (React, Meteor)

### 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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## School Projects

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*Projects available on [GitHub](#) or upon request*

### Graduate Class Projects

*University of Maryland*

Advanced projects including:

- User study (recreation) in smartphone-sharing tendencies ([jugoodma/can-borrow](#))
- IoT sonic localization ([jugoodma/818bw-project](#))
- Budget-constrained robot mapping ([jugoodma/818bw-project](#))
- Nori ray-tracer
- Language corpus information content ([jugoodma/828f-project](#))
- RF localization ([jugoodma/rf-loc](#))

### Undergrad 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 (Java)
  - AVL Trees
  - Patricia Tries
  - KDTrees
  - PRQuadTrees
- Distributed Systems (Go)

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## Personal Projects

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*Projects available on [GitHub](#) or upon request*

### GPSRace

Summer 2020

Developed initial front-end and back-end for cloud-based GPS comparison tool. This was created during the COVID-19 pandemic as a means for cyclists to “race” solo, yet still compare times. [gpsrace.cc](#)

### Behavioral Research App

*University of California  
San Diego, CA  
August 2017*

- 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](#), [justgood.dev](#)
- Set up SSH key-based authentication and forced-HTTPS protocol
- Migrated server to Raspberry Pi (3B+)
- Hooked up UPS (Uninterruptible Power Supply) – 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

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## Organizations

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**Dept. of Computer Science** Undergraduate representative  
**Education Committee**  
*University of Maryland*  
*College Park, MD*  
Fall 2018 – Spring 2020

**UMD Cycling Club** Marketing Coordinator (June – Dec 2017)  
*University of Maryland*  
*College Park, MD*

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## Accomplishments

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**Best Undergraduate TA** Selected by the Teaching Awards Committee  
*University of Maryland*  
*College Park, MD*  
Fall 2017 – Spring 2018  
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** Project: cleared out overgrowth in 350ft × 10ft creek (mill race) at Furnace  
*Salisbury, MD* Town Living Heritage Museum. I try and check back each summer – the  
August 2015 overgrowth is still gone!

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## Things I Like

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**Normal Human Things** writing (especially in  $\text{\LaTeX}$ ), making music, learning, cooking, cycling, swimming, running, advocating for wearing sunscreen, working on difficult problems, studying math until my brain hurts, cracking dumb jokes with my friends, and playing video games  
I like coding too!