Justin Goodman

College Park, MD   @jugoodma   justgood.dev

Education

University of Maryland *College Park, MD* August 2020 – May 2021	M.S. Computer Science GPA: 4.0 Coursework:

Empirical Research Methods	Advanced Computer Graphics
Decision-Making for Robotics	Computational Psycholinguistics
Wireless and Mobile Systems for the IoT	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	Statistics
Artificial Intelligence	Number Theory
Advanced Data Structures	Advanced Calculus
Human-Computer Interaction	Linear Algebra
Game Programming	Numerical Computational Methods
*Distributed Cloud-Based File Systems	Cryptology
Compilers	Abstract Algebra

* Graduate-level course

Teaching

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

Research

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 Reitinger, Justin Goodman, Margot Herman, Dorota Filipczuk, Ben Weinshel, Michelle L. Mazurek, Blase Ur
29th 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

Industry

Software Engineer
Bloomberg
New York, NY
September 2021 – Present

- Collaborated with team to build out web server for content aggregation and presentation
- Built out caching system (speed-up stats TBD)
- (planned) Built out fully-fledged integration testing infrastructure
- developer.bloomberg.com
- Trained in Bloomberg's in-house SOA tech stack Rapid/BAS/Comdb2

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

School Projects

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)

Personal Projects

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 2nd 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

Organizations

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)

Accomplishments

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!

Things I Like

Normal Human Things

writing (especially in 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!