

# Sedona Thomas (she/her/hers)

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[LinkedIn](#) · [Github](#) · [Up-To-Date Resume](#)

## Professional Summary

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Passionate and hard-working computer science and human rights student. Experience spans across a wide variety of technical and non-technical field, primarily focusing on privacy, accessibility, fairness, clean object-oriented design, and ethical technologies.

## Academic Interests

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Privacy, Accessibility, Algorithmic Fairness, Clean Code, Ethical Technologies, Natural Language Processing

## Education

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**Columbia University, Fu Foundation School of Engineering and Applied Science** **New York, NY**  
B.S. in Computer Science (Applications Track) – GPA: 3.7570 ([Diploma](#)) Aug 2018 – May 2022

**Columbia University in the City of New York, Columbia College** **New York, NY**  
B.A. in Human Rights (Honors Thesis Track, Women and Gender Studies specialization) Aug 2018 – May 2023

- Thesis: Mainstream Malware? Rights to Privacy and Non-Discrimination in the Predictive Artificial Intelligence Systems of a Globalized Digital Infrastructure
- Advisors: Professor Andrew J. Nathan and Professor Tracey Holland

## Work Experience

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**Columbia University, Fu Foundation School of Engineering and Applied Science** **New York, NY**  
**Teaching Assistant** Aug 2022 – Present

- Course:** COMS 3410 Computers and Society with Professor Ronald Baecker
- Assisted faculty members with classroom instruction, exams, record keeping, and other miscellaneous projects
- Obtained materials needed for classes, including texts and other materials
- Handed out assignments and grade homework, exams, and papers
- Met with students during office hours and corresponded with students via email and Courseworks

**Inspirit AI** **Remote**  
**Main Course Instructor** Jun 2021 – Present

- Taught artificial intelligence, machine learning, and natural language processing concepts to high-school students
- Oversaw student programming projects in a variety of domains including criminal justice and content recommendation
- Moderated college and career panels and technology ethics workshops for large groups of students

**Inspirit AI** **Remote**  
**Substitute Instructor** Jun 2021 – Present

- Taught course lessons on AI, NLP, and ML for missing instructors
- Supported main instructors with student engagement
- Communicate issues to course managers
- Provide assistance with miscellaneous tasks throughout course sessions

**Amazon Prime Video** **New York, NY**  
**Software Development Engineering Intern** May 2022 – Aug 2022

- Worked with a developer to integrate a new proof of concept recommendation page
- Collaborated with other teams to integrate their APIs into a new application
- Tested software for bugs and ensured unit tests had maximum code coverage (at least 80% line coverage)

## Skills

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**Computer Science:** Natural Language Processing (NLP), Artificial Intelligence (AI), Machine Learning (ML), Databases, Computer Audio, Security, User Interfaces, Programming Languages and Translators, Compilers, Computational Audio, Accessible Technology

**Software:** Google Cloud Platform (GCP), Web Audio, Figma, Balsamiq, Burp Suite, Ubuntu, Kali Linux, Raspbian, WordPress

**Fluent:** Python, Java, C, C++, Kotlin, JavaScript, HTML5/CSS, Shell Scripting, SQL, PostgreSQL, Makefile, Git, Bash, Zshell, Flask, LaTeX

**Proficient:** MIPS Assembly Language, PowerShell, MATLAB, HTTP Protocols

**Hardware:** Raspberry Pi, Esp32, Arduino, PlatformIO, SolidWorks

**IDEs:** IntelliJ IDEA, Eclipse, Spyder, PyCharm, Anaconda, VSCode

**Math:** Number Theory, Cryptography, Discrete Math, Relational Algebra, Multivariable Calculus, Statistics, Linear Algebra

**Languages:** English (native proficiency), French (limited working proficiency), Spanish (elementary proficiency)

## Volunteering

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### Computers and Society

**Remote**

#### *Student Volunteer*

May 2022 – Present

- Volunteered to research and write the first Computers and Society Wikipedia page with University of Toronto Emeritus Professor Ron Baecker and Uma Kalkar
- Researched topics and compiled resources for the Computers and Society website as a [student volunteer](#)
- Wrote a variety of topics for the Wikipedia page including algorithmic biases, security, data breaches, identity theft, ransomware, deepfakes, fairness, truth, injustice, anthropomorphism, responsibility, accountability, government by algorithm, regulation of algorithms, AI being used prematurely, explainable AI, and computational trust

### Columbia Makerspace

**New York, NY**

#### *Volunteer Superuser*

Apr 2022 – Present

- Maintained the various tools in the Columbia Makerspace
- Held workshops throughout the semester
- Trained students to use tools including 3D printers, laser cutters, soldering tools, stained glass tools, hand tools, jewelry making tools, vinyl cutters, and more

### All Tech Is Human: [AI & Human Rights Working Group](#)

**Remote**

#### *Contributor*

Mar 2022 – Jun 2022

- Supported the [2022 AI & Human Rights report](#) for All Tech Is Human
- Compiled resources related to AI and Human Rights
- Major contributions included increasing the overall accessibility of the report through the creation of alternative text for profile interviewees and attending working group meetings

### Columbia University Society of Women Engineers

**New York, NY**

#### *Mentorship Family Leader*

Aug 2020 – May 2022

- Led and advised five undergraduate women in the computer science mentorship family

### Columbia University QuestBridge Scholars Network

**New York, NY**

#### *Mentor*

Aug 2019 – May 2021

- Advised a first-generation and low-income undergraduate
- Provided assistance accessing Columbia University resources and financial aid

### Columbia University Engineering Student Council

**New York, NY**

#### *Mentor*

Aug 2020 – May 2021

- Advised five computer science undergraduates
- Provided assistance accessing Columbia University student resources

## Leadership Experience

### NSOP R.O.A.R. @ Columbia

New York, NY

#### Discussion Facilitator

Mar 2020 – Aug 2021

- Facilitated panels of first-year students during first-year orientation
- Taught about drug/alcohol use and stress culture/resources at Columbia

### Columbia Health

New York, NY

#### Peer Ambassador

Aug 2019 – Jan 2020

- Educated Columbia students about available resources on campus
- Served as a liaison between the student body and Columbia Health

### NSOP Responsible Community @ Columbia and Live Well | Learn Well

New York, NY

#### Discussion Facilitator

Mar 2019 – Aug 2019

- Led three discussions with twenty first-year students during first-year orientation
- Taught about drug/alcohol use and stress culture/resources at Columbia

### Columbia Goju Karate Club

New York, NY

#### Treasurer

Jan 2019 – Jan 2020

- Created semesterly budgets and financial transactions
- Maintained approval of budgets from the Columbia Athletics financial advisor
- Collected member dues

#### Social Media Manager

Jan 2019 – Jan 2020

- Managed club social media accounts including Instagram and Facebook
- Increased student engagement with the club both virtually and in-person
- Advertised club events through regular social media posts

## Awards/Honors

### Order of Omega: Greek Honor Society ([Organization](#))

Apr 2022 – Present

### Out for Undergrad Engineering Alumnus

Aug 2021 – Present

### Out for Undergrad Tech Alumnus

Aug 2021 – Present

### Columbia University SEAS-CC 4-1 Program ([Program](#))

Aug 2018 – May 2023

### Columbia University Dean's List

May 2021

### Nevada Governor's Volunteer Service Award ([Award](#))

Apr 2017

## Organizations

### Member – All Tech Is Human: AI & Human Rights Working Group ([Organization](#))

Mar 2022 – Present

### Member – Order of Omega: Omicron Chapter (Greek Honor Society) ([Organization](#))

Apr 2022 – Present

### Member – Gamma Phi Beta: Iota Chapter ([Gamma Phi Beta Homepage](#))

Sep 2021 – Present

### Member – Columbia Women in Computer Science ([WiCS Homepage](#))

Dec 2019 – Present

### Member – Columbia Society of Women Engineers ([SWE Homepage](#))

Aug 2018 – Present

### Member – Columbia iQ (LGBTQ+ STEM Organization) ([Facebook Page](#))

Aug 2018 – Present

### Member – Columbia QuestBridge Scholars ([Facebook Page](#))

Aug 2018 – Present

### Member – Columbia Goju Karate Club ([Homepage](#))

Aug 2018 – Jan 2020

## Scholarships/Fellowships

### The Columbia University Beesen Global Experience Research Fellowship ([Fellowship](#))

2019

- A \$5,000 fellowship for non-native French speakers to study or do research in Paris during the summer

### Macy's 'Vegas Strong' First Responders' Dependent Scholarship ([Scholarship](#))

2018

- A \$10,000 scholarship awarded over 4 years to students in the wake of the 2017 shooting in Las Vegas

### Toyota Making Life Easier Scholarship ([Scholarship](#))

2018

- A \$10,000 scholarship for undergraduate/graduate students with significant community service contributions  
**Nevada State Treasurer's Office: Governor Guinn Millennium Scholarship** ([Scholarship](#)) 2018 – 2024
- A \$10,000 scholarship for high-achieving students pursuing higher education at a Nevada institution  
**Michael T. Martin Scholarship** ([Scholarship](#)) 2018
- A \$6,000 scholarship for high-achieving students pursuing a 4-year degree in a construction related field  
**Ronald McDonald House Charities Scholarship** ([Scholarship](#)) ([Article](#)) 2018 – 2020
- A \$1,000 scholarship to support students pursuing an undergraduate degree
- An additional \$1,000 scholarship for outstanding community service for 1 out of 100 scholarship recipients
- An additional \$1,500 in scholarships received for continuing academic achievement  
**American Atheists President's Scholarship** ([Scholarship](#)) 2018
- A \$500 scholarship awarded to high-achieving atheist student activists pursuing higher education  
**Royal Business Bank Scholarship** ([Scholarship](#)) 2018
- A \$1,000 scholarship to support high-achieving students pursuing higher education  
**Overton Power District No. 5 Scholarship** ([Scholarship](#)) ([Article](#)) 2018
- A \$1,000 scholarship for local students involved in community service pursuing a STEM degree  
**NV Energy Powerful Partnership Scholarship** ([Scholarship](#)) 2018
- A \$1,000 scholarship awarded to a high-achieving students with significant community service contributions  
**Nevada State Firefighters Association Scholarship** ([Scholarship](#)) 2018
- A \$1,000 scholarship for high-achieving students pursuing higher education  
**Grant M. Bowler Pursuit of Excellence Scholarship** ([Article](#)) 2018
- A \$200 local scholarship to high-achieving student with notable academic and extracurricular achievements  
**Veterans of Foreign Wars Voice of Democracy Local Scholarship** ([Scholarship](#)) ([Article](#)) 2017
- A \$100 scholarship for outstanding patriotism through an essay writing contest  
**Prudential Spirit of Community Awards: Distinguished Finalist** ([Program](#)) ([Article](#)) 2018
- A nationwide program nominating students for outstanding acts of volunteerism in their community  
**QuestBridge Presidential Scholars Program Nominee** ([Program](#)) 2018
- 35 of 5,759 QuestBridge scholars nominated by QuestBridge for the U.S. Presidential Scholars Program

## Certifications

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- CITI Program:** Human Subjects Protection Social and Behavioral Research Certification Aug 2021 – Present  
Credential ID: 47837978 ([Credential URL](#))
- Columbia University Codepath Cybersecurity Course Honors Certification** Apr 2021
- New York State Department of Health:** Opioid Overdose Prevention Naloxone Certification Sep 2019

## Projects

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- Digital Synthesizer (with physical device)** ([Code](#), [Device](#)) (JavaScript, HTML, ESP32) Sep 2021 – Mar 2022
- Digital synthesizer with modes for additive synthesis, AM/FM synthesis, and low frequency oscillation with a hand-made hardware control box
- Program Compiler Automation Tool** (C++, Makefile) May 2021 – Jun 2021
- Makefile alternative with cache to maintain current project status, compiles specified programs and creates phony target commands
- Natural Language Processing Image Captioning** (Python) May 2021 – Jun 2021
- A conditioned recursive neural network generator to caption images using a greedy image decoder and beam search, trained on the flickr8k dataset
- Web Server** ([Code](#)) (C, Makefile, HTML5/CSS) Aug 2020 – Dec 2020
- A web server with a subset of HTTP 1.0 functionality, implementing GET requests for static pages and a database search system

## Notable Courses

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- COMS 3420: Privacy in a Networked World** Spring 2022
- Course Description:* Focuses on the technical challenges of handling sensitive data, the privacy implications of various technologies, and the policy and legal issues facing data subjects, data owners, and data users

**COMS 3162: Developing Accessible User Interfaces**

Spring 2022

*Course Description:* Introduction to access technology and the development of accessible systems. Topics Include: text-to-speech, speech recognition, screen readers, screen magnification, alternative input, tactile displays, and web transformation

**COMS 3107: Clean Object-Oriented Design**

Fall 2021

*Course Description:* A course in designing, documenting, coding, and testing robust computer software, according to object-oriented design patterns and clean coding practices.

**COMS 4115: Programming Languages and Translators**

Fall 2021

*Course Description:* Discuss principles of design and implementation of compilers, learn about different phases of a compiler including lexical analysis, syntactic and semantic analysis including type checking, code generation, and optimization, and study basic program analysis techniques required to perform compiler optimization

**COMS 4705: Natural Language Processing**

Summer 2021

*Course Description:* Computational approaches to natural language generation and understanding. Topics include information extraction, summarization, machine translation, dialogue systems, and emotional speech

**COMS 4701: Artificial Intelligence**

Spring 2021

*Course Description:* A broad understanding of the basic techniques for building intelligent computer systems. Topics include state-space problem representations, problem reduction and and-or graphs, game playing and heuristic search, predicate calculus, and resolution theorem proving, AI systems and languages for knowledge representation, machine learning and concept formation

**COMS 4111: Introduction to Databases**

Spring 2021

*Course Description:* The fundamentals of database design and application development using databases: entity-relationship modeling, logical design of relational databases, relational data definition and manipulation languages, SQL, XML, query processing, physical database tuning, transaction processing, security