Maya De Los Santos

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EDUCATION

Northeastern University Honors Program | Boston, MA Bachelor of Science in Electrical & Computer Engineering Expected May. 2025 3.88 GPA | Dean's List

Awards: 2024 Barry Goldwater Award Nominee, 2022 Grace Hopper Celebration Scholar & 2021 Generation Google Recipient Relevant Coursework: Fundamentals of Engineering Algorithms, Embedded Design, Foundations of Cybersecurity, Discrete Structures, Algorithms that Affect Lives, Calculus III, Differential Equations & Linear Algebra, Artificial Intelligence

Northeastern University | Global AI (PhD Level Course)

Jan. 2023 - Apr. 2023

- Learned how culture and culture models can influence design of intelligent interfaces in class taught by Dr. Saiph Savage
- Identified how certain intelligent interfaces can promote racism, ableism, sexism, & be problematic for certain cultures

Université de Toulouse | <u>How Humans Judge Machines</u> (PhD Level Course)

Mar. 2021 - May 2021

- Learned about human perception of machines through research review & in-class activities taught by Dr. Cesar Hidalgo
- Created and presented video project discussing the ethical and moral implications of Neuralink [HHJM_FinalProject]

PUBLICATIONS

- Gianna Williams, Maya De Los Santos, Alexandra To, and Saiph Savage. Mapping Crowdsourcing Workforce in Latin America and the Caribbean. Avances en Interacción Humano-Computadora (AMexIHC), 2025.
- Maya De Los Santos*, Kimberly Do*, Michael Muller, and Saiph Savage. Designing Sousveillance Tools for Gig Workers. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI), 2024. [Paper]
- Maya De Los Santos, Norma Elva Chávez, Alberto Navarrete, Cristina Martínez Pinto, Luz Elena González, Tatiana
 Telles-Calderon, Saiph Savage. La Independiente: Designing AI Ubiquitous Systems for Latin American and Caribbean
 Women Crowdworkers. Proceedings of the ACM International Joint Conference on Pervasive and Ubiquitous Computing &
 International Symposium on Wearable Computing (UbiComp/ISWC), 2023. [Article]
- Maya De Los Santos*, José Emilio García*, Norma Elva Chávez, Alberto Navarrete, Cristina Martínez, Luz Elena González, Tatiana Telles, Paola Ricuarte, Saiph Savage. La Independiente: an AI-enhanced Platform Co-Designed with Latin-American Crowd-Workers. Avances en Interacción Humano-Computadora (AMexIHC), 2023. [Article]
- Maya De Los Santos and Daniel Klug. The TikTok Tradeoff: Compelling Algorithmic Content at the Expense of Personal Privacy. In 20th International Conference on Mobile and Ubiquitous Multimedia (MUM), 2021. [Extended Abstract]

WORK & RESEARCH EXPERIENCE

Apple AI/ML Research Intern | Advised by Dr. Jeffrey Bigham

May 2024 - Present

Investigating how design can empower users to align their intent with the output of generative AI tools

Northeastern University's Computer Architecture Lab | Advised by Dr. David Kaeli

Jan. 2024 - May 2024

Developed infrastructure of open-source toolset to allow binary-level debugging and performance analysis on AMD GPU

Northeastern University's Civic AI Lab | Advised by Dr. Saiph Savage

Jan. 2023 - May 2024

- Conducted 16 semi-structured interviews and participatory design sessions with gig workers to devise AI-enhanced tools to
 promote their agency and well-being resulting in publication in the 2024 CHI Conference
- Analyzed 55 surveys of women crowdworkers in LATAM using affinity mapping to identify themes in their challenges and
 designed a culturally informed system to foster community resulting in publication in the 2023 UbiComp/ISWC Symposium
- Managed and mentored cross-functional team of 3 interns from diverse academic backgrounds, ranging from high school
 to master's level, to develop an AI-powered tool that empowers BIPOC women in their crowd work negotiations
- Proactively engaged with the industry's top experts and organizations, including the DAIR Institute, <A+> Alliance for Algorithmic Justice, and Feminist AI Network, to stay informed & inspired about the latest developments in Responsible AI

Philips | HealthTech Software Engineering Co-op

Jan. 2022 - Aug. 2022

- Developed & debugged C# applications and components within team focused on the creation of Patient Monitoring systems
- Investigated and implemented encryption & decryption of patient data in solution archive based on user-selected password
- Leveraged GitHub workflows, CI/CD practices, & DevOps principles to transition to modern microservice-based application

Carnegie Mellon University REUSE Program | Advised by Dr. Daniel Klug

Jun. 2021 - Feb. 2022

- Investigated user awareness of TikTok's algorithms and privacy policy to understand if users believe the benefits of TikTok outweigh privacy terms they must consent to before gaining access resulting in publication in the 2021 MUM Conference
- Conducted 12 semi-structured interviews with TikTok users and interpreted results through collaborative qualitative coding

^{*} Both authors contributed equally

Northeastern University Honors Direct Study Research | Advised by Dr. Tina Eliassi-Rad

- Jan. 2021 May 2021
- Investigated issues with machine prediction & human decision pipeline [social media monitoring by government agencies]
- Utilized Python framework TextAttack to create 102 adversarial examples used to test popular sentiment analysis tool LIWC
- Organized results from LIWC testing to identify software's accuracy in labeling adversarial examples as positive/negative

Northeastern University UPLIFT Scholar Research | Advised by Dr. David Kaeli

Sept. 2020 - Dec. 2020

- Programmed and analyzed efficiency comparison of insertion sort vs. merge sort and program to calculate π using dart method
- Experimented with parallel computing using pthreads to divide and conquer programs on the Discovery Cluster (Linux, C++)

LEADERSHIP EXPERIENCES

Northeastern University | Resident Assistant

Mar. 2022 - Present

- Responsible for directly supporting 29 undergraduate residents through specialized communication, including 1:1 discussions, roommate/suitemate agreement facilitations, and hosting monthly events to nurture belonging
- Collaborating with staff of 36 to target areas of improvement during creation of environments conducive to the academic, social, and personal growth of 1600+ undergraduate residents

Princeton University AI4ALL Program | Changemaker and Outreach Ambassador

Jul. 2018 - Present

- Invited by Dr. Fei-Fei Li to present work on responsible generative AI to industry leaders including OpenAI and Microsoft
- Managed 32 students, 40 hrs/week for 2020 AI4ALL program facilitating lectures and group 'AI & social impact' discussions
- Presented natural language processing 'Fake News Challenge' research project at closing ceremony of 2018 AI4ALL program

President, NEU Society of Hispanic Professional Engineers | Boston, MA

Apr. 2022 - May 2023

- Managed 11 board members, organizing meetings to strengthen 25 members' professional, academic, & cultural goals
- Led the organization of the 2022 National Convention efforts and directed the chapter's first large-scale Dia de los Muertos and Carnavales celebrations, demonstrating creativity and effective project management skills

Northeastern University | Teaching Assistant

Aug. 2021 - May 2022

- Graded assignments of 34 students in GE1501 Cornerstone of Engineering I & GE1502 Cornerstone of Engineering II
- Met 1-on-1 with students for additional help with C++, AutoCAD, MATLAB, Sparkfun, SolidWorks, & memo writing

Internal Affairs Chair, Society of Hispanic Professional Engineers | Boston, MA

Any 2021 Any 20

- Planned events to celebrate Hispanic Heritage Month, Black History Month, & College of Engineering Recognition Banquet
- Manage professional development within and affiliated with Northeastern University and representative at admin meetings
- Represent NEU SHPE at monthly College of Engineering Student Advisory Committee and Latinx Coalition meetings

COMMUNITY INVOLVEMENT

Boston Debate League | Boston, MA

Feb. 2023 - Mar. 2023

Sept. 2022 - Present

• Volunteered as tournament judge for non-profit providing debate and argumentation programs in English & Spanish to Boston Public School students of color and those who have been denied these educational opportunities

Northeastern University Student Service | Boston, MA

Panels Served

Panels Hosted

- SHPE Latine/Hispanic Professor Panel
- Co-op Panel (and served as a panelist): Advocating for yourself in the workplace, code-switching discussion, and finding community in new space
- College 101 (Co-Hosted and served as a panelist)

 Plant Francisco Control of Contro
- Black Engineering Student Society Research Panel
- Coffee chats w/ underclassmen; Navigating being a minority & First-Gen college student at NEU
- COE Selecting a Major Panel for incoming freshman
- COE ECE Co-op Career Panel for Undergraduate Students
- SHPE Imposter Syndrome Panel

SKILLS

- Languages: Spanish (proficient), English (fluent)
- Programming Languages: C++ (object-oriented programming), C#, Bash, Python, MATLAB, Powershell, Java, HTML
- Add'l: GitHub, Figma, Semi-Structured Interviews, Co-Design Sessions, Qualitative Coding, Apple/Microsoft/Google Suites

AWARDS/INTERESTS

- 2024 Barry Goldwater Award Nominee
- 2023 AJC Merit Researcher Scholarship
- 2022 Grace Hopper Celebration Scholar
- Northeastern University Dean's List (Fall 2020, Spring 2021, Fall 2021, Fall 2022)
- 2021 Generation Google Scholar Recipient
- 2020 NCWIT Aspirations in Computing National Award and New Jersey Affiliate Winner
- 2019 Hispanic Heritage Youth Award Silver Medalist for Technology & Engineering
- Girl Scout Gold, Silver, & Bronze Awards Recipient

- 2023 Entegris Foundation Engineering Scholarship 2021 BETF Corporate Scholarship Recipient