Legasse Remon

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Education

2022-2026 **B.Sc.** Computer Science, University of Florida

2025 **Exchange Student**, Kyoto University

Research Experience

Research Assistant Fall 2024-Present

NCC Lab, Princeton University, Advisor: Dr. Jonathan Cohen

Princeton, NJ

- Simulated cognitive models that demonstrate Vision-Language Model processing constraints through Bayesian inference with PyTorch, Tensorflow, and Jupyter
- Investigated the impact of ablating attention heads and feedforward layers in LLMs on behavior in higher executive cognitive functioning.

Research Intern Summer 2024

- Deployed written surveys with JSPsych, React, and Next.JS with AWS S3 cloud architecture to recruit participants
- Demonstrated Vision Language Models (VLMs) may exhibit human-like capacity constraints arising from the binding problem.

Research Assistant 2022-Present

Ebner Lab, University of Florida, Advisor: Dr. Natalie Ebner

Gainesville, FL

- Analyzed neurocognitive mechanism associations to deceptive deepfake correlates with CNN approach to facial recognition algorithms on social media
- Instructed beginner coding workshops in Python and R to onboard new lab members
- Developed AWS cloud architecture for automated phishing experiments and applied FMRI & EEG data to model neural features as predictors of deception

Work Experience

Machine Learning Intern

Fall 2024

IBM

Austin, TX (Hybrid)

- Implemented adversarial training with FGSM & PGD using PyTorch, Tensorflow, and ART to improve model robustness against evasion attacks by 35%
- R&D in adversarial machine learning for IBM-Watson reinforcement learning; created MLSecOps pipeline for preventing data poisoning and model inversion attacks

Security Engineering Intern

Summer 2024

Mastercard

New York, NY

- Monitored inflow traffic with SOAR and SIEM to containerize and mitigate 3rd-party randomized architecture C&C attacks using LibreNMS and RemNux
- Developed Linux tools for network pentesting; performed static and dynamic analysis on machines using OpenCanary, Docker, and Splunk to combat insider threats

Cybersecurity Intern

Summer 2023

Raymond James Financial

Tampa, FL

- Mitigated real-time CVE and ODAY cyber-attacks with incident response teams using Splunk, Cylance, Tanium, and Crowdstrike EDR
- Implemented a Bootstrap & C++ application to dump payloads routed in JavaScript into TXT files to prevent malicious code execution from phishing attacks

Awards & Honors

2025	Fulbright Award Nominee, UF Office of Prestigious Awards
2024	Barry M. Goldwater Scholarship Nominee, UF Office of Prestigious Awards
2024	Kemerait Family Int'l Scholarship, University of Florida (\$1,000)
2024	Benjamin A Gilman International Award, US Department of State (\$4,000)
2024	Ronald E. McNair Post-baccalaureate Program Award, UF McNair (\$2,250)
2024	Global Collegiate Penetration Testing Competition, Global 2nd, UF Security Infor-
	mation Team (\$5,000)
2024	NSF REU Recipient, National Science Foundation
2023	AI University Scholars Award, University of Florida (\$1,750)
2023	HSF Initiative Award, Hispanic Scholarship Fund (\$2,000)
2023	BlackHat USA Scholarship, BlackHat USA (\$4,000)
2023	NCAE Cybergames, 3rd place UF Security Information Team (\$2,500)
2023	CyberForce DOE Competition, 2nd place UF Security Information Team (\$5,000)
2023	HackHarvard Hackathon, 1st place Harvard University (\$250)
2023	John and Mittie Collins Engineering Award, University of Florida (\$1,000)
2022	UF Emerging Scholar Research Award, Center for Undergraduate Research (\$500)
2022	Raymond James CTF, 1st place Raymond James Financial (\$10,000)
2022	Elks National Foundation MVS Semi-FinalistElks National (\$4,000)
2022	Global Collegiate Penetration Testing Competition, Regional 1st, CPTC (\$7,500)
2022	Sunshine Opportunity Award, Raymond James Financial (\$25,000)
2022	Florida Bright Futures Award, Florida Dep. of Education (\$65,000)
2022	HSF Scholar Award, Hispanic Scholarship Fund (\$2,000)
Total:	\$144,750

Publications

Research Contribution papers

- W1. Nam, A., Campbell, A., Griffiths, T., Cohen, J. D. & Leslie, S. "Understanding Task Representations in Neural Networks via Bayesian Ablation Acknowledged contribution. Submitted to CogSci. 2025.
- W2. Pehlivangolu, D., Zhu, M., Zhen, J., Gagnon, A., Kern, R., Woodard, D., Cahill, B. & Ebner, N. C. *Is this real? Susceptibility to deepfakes in machines and humans* Preprint. 2025.
- W3. Campbell, D., Rane, S., Giallanza, T., Sabbata, N., Ghods, K., Joshi, A., Ku, A., Frankland, S., Griffiths, T. L., Cohen, J. D. & Webb, T. *Understanding the Limits of Vision Language Models Through the Lens of the Binding Problem.* Supported publication to NeurIPS. 2024.

Presentations

Talks

- T1. **Remon, L.** Developing Your Research Career. <u>Talk at the University of Florida Career Connections Center</u> (Gainesville, FL, USA). May 2024.
- T2. **Remon, L.** Enhancing Company Profile for Intern Candidates. <u>Talk at the University of Florida Small Business Fair (Virtual). June 2024.</u>
- T3. **Remon, L**. *Human-like Capacity Constraints in Vision Language Models*. Talk at the Leadership Alliance National Symposium (Hartford, CT, USA). Aug. 2024.

- T4. **Remon, L.** Human-Like Geometric Abstraction in Large Pre-trained Neural Networks. <u>Talk at the Society of Hispanic Professional Engineers National Convention</u> (Los Angeles, CA, USA). Nov. 2024.
- T5. **Remon, L**. *Student Involvement Through A First-Generation Lens*. <u>Talk at the Florida First Year Florida SLS Orientation (Virtual)</u>. July 2024.
- T6. **Remon, L**. *How to Succeed in College*. <u>Talk at Anclote High School</u> (Holiday, FL, USA). Sept. 2023.
- T7. **Remon, L**. *Outreaching for Internship Candidates*. Talk at the University of Florida Spring Career Showcase (Gainesville, FL, USA). Aug. 2023.
- T8. **Remon, L.** *The Impact of Autism on Career* Talk at the Impact Laboratories National Summit (Virtual). [link]. Sept. 2023.

Posters

- P1. Remon, L., Campbell, D., Kumar, S., Giallanza, T., Cohen, J. D. & Griffiths, T. L. Limits of Vision Language Models Through the Lens of the Binding Problem. SHPE National Convention Research Symposium (Los Angeles, CA, USA). Nov. 2024.
- P2. Remon, L., Pehlivanoglu, D., Zhu, M., Zhen, J., Gagnon-Roberge, A., Kern, K., Woodard, D., Cahill, B. & Ebner, N. C. *Is this real? The role of modality and psychological variables in deepfake detection in humans vs. machines.* Annual Meeting of the Association for Psychological Science (San Francisco, CA, USA). May 2024.
- P3. Remon, L., Campbell, D., Kumar, S., Giallanza, T., Cohen, J. D. & Griffiths, T. L. *Human-Like Geometric Abstraction in Large Pre-trained Neural Networks*. <u>Princeton Summer Research Colloquium</u> (Princeton, NJ, USA). Aug. 2024.
- P4. Remon, L., Campbell, D., Webb, T. & Cohen, J. D. *Human-like Capacity Constraints in Vision Language Models*. Princeton Neuroscience Institute Summer Research Symposium (Princeton, NJ, USA). Aug. 2024.
- P5. Remon, L., Campbell, D., Webb, T. & Cohen, J. D. *Human-like Capacity Constraints in Vision Language Models*. <u>Leadership Alliance National Symposium</u> (Hartford, CT, USA). July 2024.
- P6. Remon, L., Campbell, D., Webb, T. & Cohen, J. D. *Limits of Vision Language Models Through the Lens of the Binding Problem*. Society for Neuroscience Conference (Chicago, IL, USA). Oct. 2024.
- P7. Remon, L., Zhen, J., Pehlivanoglu, D., Zhu, Cahill, B., Woodard, D. & Ebner, N. C. Effects of Analytical Reasoning and Interoceptive Awareness on the Ability to Detect Deepfake Face.

 Society of Hispanic Professional Engineers Engineering Research Symposium (Gainesville, FL, USA). Apr. 2024.
- P8. Remon, L., Zhen, J., Pehlivanoglu, D., Zhu, Cahill, B., Woodard, D. & Ebner, N. C. Effects of Analytical Reasoning and Interoceptive Awareness on the Ability to Detect Deepfake Faces.

 <u>University of Florida Undergraduate Research Symposium</u> (Gainesville, FL, USA). Apr. 2024.
- P9. Remon, L., Sempio, F., Heemskerk, A., Pehlivanoglu, D. & Ebner, N. C. *High Contact Roles Predicts Susceptibility to Phishing Among Older Adults*. <u>University of Florida CURBS Fall Exposition</u> (Gainesville, FL, USA). Sept. 2023.

P10. Remon, L., Sempio, F., Heemskerk, A., Pehlivanoglu, D. & Ebner, N. C. *Modeling Neurocognitive Mechanisms Underlying Fake News Detection Using Artificial Intelligence*. <u>SHPE National Convention Research Symposium</u> (Salt Lake City, UT, USA). Nov. 2023.

Leadership

2023-2024 | Society of Hispanic Professional Engineers, Graduate Coordinator

- Managed a team of 19 directors to execute various academic development workshops, networking events, and research and graduate information sessions for 300 active chapter members.
- Founded the UF Engineering Research Symposium, boasting 100 presenters and over 600 attendees from 18 different engineering organizations

2022-2023 | Society of Hispanic Professional Engineers, Research Director

- Created the Emerging Research Leaders program and academic enrichment workshops for 80 students, ensuring success in finding, communicating, and conducting research; resulted in 85% lab acceptance rates.
- Coordinated research lab tours, funding opportunities, weekly academia newsletters, and mentored 20 students to succeed in research and graduate school applications

2022-2024 University of Florida Security InfoSec, Competitions Lead

- Trained 3 national CTF teams in ethical hacking to secure \$30,000 in organization funding across 15 competitions over 2 years.
- Constructed competition logistics regarding communication, travel, technical plan, and training schedules

Grants

AI Across the Statewide Curriculum, UF-FAMU NSF Award 2123440, (\$1,750)

Conference Travel Awards

2025	TreeHacks Hackathon Travel Award, Stanford University (\$250)
2024	Association for Psychological Science Annual Meeting, Association for Psychological
	Science (\$250)
2023	CalHacks Hackathon Travel Award, University of California, Berkeley (\$250)
2023	BlackHat USA Annual Conference Travel Award, Blackhat USA (\$4,000)
2023	Foundation for Individual Rights and Expression Conference Travel Award, FIRE
	Foundation (\$500)
2022	Hack Georgia Tech Travel Award, Georgia Institute of Technology (\$250)

Selected Media Coverage

Mar 2025	Kerry Magro, Autistics on Autism: The Next Chapter, pg 32.
Feb 2025	The Stanford Daily, TreeHacks awards \$200,000 in prizes to students from around
	the world, (Soloman, Sam)
Jun 2023	Florida Elks Magazine, 2023 Elks Scholar Service Trip to Florida: Giving Back to
	Those Who Invest in Their Educations, (King, Rachel), vol 44., pp20-21
Apr 2022	Pasco County Schools, Three High School Seniors at Pasco County Schools Win
	Prestigious Scholarships, (PCS News)

Teaching

Fall 2025 Teaching Assistant, Introduction to Psychology (PSY2012), Teresa Vasquez
2023-2024 Teaching Assistant, Programming Fundamentals II (COP3503C), Dr. Joshua Fox

Skills

Programming C, C++, Python, Lua, Java, JavaScript, React-Native, NextJS

Languages English (native), Spanish (native), Japanese (N5)

Security Ghidra, Metasploit, Binja, REMnux, Cain, BurpSuite, Nessus

Data PyTorch, Pandas, TensorFlow, Splunk Experiments JSPsych, MTURK, Prolific, PsychoPy

Other AWS, Git, CloudFlare

Professional Affiliations

Society of Hispanic Professional Engineers, The Leadership Alliance, Hispanic Scholarship Fund

Last updated: September 14, 2025