Ismael Robles-Razzaq

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Education

The University of Chicago — Chicago, IL
B.S. Statistics, M.S. Computer Science, GPA: 3.85/4.00 — *Expected June 2027*

Honors: Dean's List (2x); Robert Maynard Hutchins Scholar (top 10%); Quad Undergraduate Research Scholar
Selected Coursework: Machine Learning; Deep Learning Systems; Large-Scale Machine Learning; Distributed Systems; Algorithms; Theoretical Neuroscience; Stochastic Processes; Numerical Linear Algebra

Experience

Research Engineering Intern (Incoming) — Jan. 2027 – Mar. 2027
Karavela AI — *Paris, France*
- Will work on fMRI foundation models.

Research Engineering Intern — June 2026 – Sep. 2026
Stealth — *San Francisco, CA*
- Built and documented the evaluation pipeline for CAD foundation models: parsed 1M+ files and embedded 10M+ parts with 8 models (80M+ vector rows) on Cloud Run, GCS, and Postgres.
- Decoupled parse and embed stages so failures retry cheaply, and packaged models as reproducible Docker images so new embedders plug in without recompute or dependency drift.
- Ran configurable retrieval evals with standardized plots (samples) that validated architecture choices at production scale and set which architectures the team kept training.

Undergraduate Researcher — May 2024 – Mar. 2026
Nogueira Lab, Grossman Center for Quantitative Biology and Human Behavior — *Chicago, IL*
- Built the end-to-end Python pipeline (trial alignment, binning, pseudo-populations) for geometry analysis of the IBL dataset (140 mice, 600+ GB): linear decoding, cross-condition generalization, XOR decoding, and encoding models.
- Found that context and stimulus are encoded in low-dimensional, orthogonal representations across visual, decision-making, and motor areas, with context-driven geometric shifts concentrated in the decision-making area; presented at the TPCN Research Seminar (Oct. 2025).
- Built and benchmarked continuous-time RNNs in PyTorch to model neural population dynamics.
- Trained classifiers on human iEEG (Fried Lab, UCLA) to study the representational geometry of concepts.

Founder & President — Aug. 2025 – Present
UChicago Neurotech — *Chicago, IL*
- Launched student BCI group; recruited 60+ members, found faculty mentor, secured EEG headsets.
- Designed EEG recording & modeling curriculum and organized internal projects around foundation models for EEG.

Projects

RallyClip | GitHub | Blog | *Python, PyTorch, ONNX, CoreML* — July 2025 – Present
- Open-source tennis point segmentation (39 GitHub stars, 90+ downloads): YOLO pose, court detection, and a dilated TCN for in-point prediction, trained from 40 hours of hand-labeled video.
- Raised good-segmentation recall on held-out matches from 6% to 50% and cut inference 5× (runs 5× faster than real time, fully on-device); shipped as a CoreML macOS app and a local web GUI.

EEG Foundation Model Digest | Site — Feb. 2026 – Present
- Daily unattended pipeline (GitHub Actions cron) that pulls EEG foundation-model preprints from arXiv, triages them with an LLM, and writes schema-validated structured summaries (architecture, pretraining objective, data scale, benchmarks) to a static site: 758 papers triaged, 180 summarized (2021–present).

EEG/EMG Foundation Challenge, NeurIPS 2026 | *In progress* — Sep. 2026 – Present
- Competing in all 4 tracks: EEG-to-image, cross-session BCI decoding, sleep onset, and EMG-to-hand-pose.

Technical Skills

Languages & Tools: Python (primary), C, SQL, Bash, Linux, Docker, Git/GitHub, ONNX/CoreML
ML & Research: PyTorch (DDP, FSDP, AMP), JAX, NumPy, pandas, scikit-learn, PyTorch Geometric
Infrastructure: GCP (Cloud Run, Cloud SQL, GCS), Postgres, Terraform, GitHub Actions, FastAPI, Comet, W&B
Neural Data: MNE-Python, LSL, EEG preprocessing, spectral analysis, representational geometry

Fellowships & Activities

Pear Prime Engineer: Pear VC; 28 selected from ∼500 applicants (Spring 2026)
TPCN Scholar: NIH-funded computational neuroscience training program, University of Chicago (2024–25)
Leadership: Director of Projects, AI@UChicago; Clients Team Chair, UChicago Techteam; POP Ranger (pre-orientation leader); Social Chair, Club Tennis & Men's Club Volleyball