

Agustina Selser

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Biomedical and AI engineer with two years of experience building neural data acquisition, decoding and closed-loop neurostimulation systems in Python and C++, from intracranial recordings in epilepsy patients to in vivo preclinical work. Most recently lead developer of a production autonomous coding agent that produces CI-validated pull requests with minimal supervision for a finance company. English and Spanish.

EDUCATION

Columbia University	New York, NY
MS in Biomedical Engineering, GPA 4.20	Expected Dec 2026
Courses: Statistics for Neural Data, Brain Computer Interfaces, Deep Learning for Signal Processing, Natural Language Processing, Robot Learning, Robotics Studio.	
Instituto Tecnológico de Buenos Aires (ITBA)	Buenos Aires, AR
BS/MS in Bioengineering, Honors Graduate	Feb 2018 - Oct 2024
Courses: Machine Learning, Statistics, Image and Signal Processing, Data Structures, Algorithms, Neurorobotics, Control Systems.	

EXPERIENCE

Terrace	Buenos Aires, AR (remote)
AI Engineer Intern	May 2026 - Aug 2026
- Lead developer of an internal autonomous coding agent in Go (hexagonal architecture) that takes a ticket and produces a CI-validated pull request with minimal supervision, across the company's repositories. Taken from roadmap to production in 3 months; at peak, among the company's top contributors. - Built the multi-provider layer over Anthropic, OpenAI, Google, xAI and Cursor APIs, with a durable orchestrator that had to run identically on every one of them: per-provider streamed token and cost accounting, and provider switching with no code changes, cutting cost from ~\$40/business day to ~\$200/month (~75%) per agent. - Multi-agent delegation across implementer, test-writer and reviewer agents, with retrieval-augmented grounding so prompts cite real file:line evidence.	
Centro de Neurociencias Cognitivas, Universidad de San Andrés	Buenos Aires, AR
Research Assistant	Aug 2023 - Aug 2025
- Built and validated multimodal data-acquisition systems in Python and C++: analog signal conditioning, precise timing alignment and structured logging, with bring-up and calibration across 10+ epilepsy patients during intracranial EEG recordings. - Optimized machine learning pipelines for intracranial EEG decoding using logistic regression, SVM and gradient boosting, achieving ~10% improvement over baseline performance. - Automated the behavioral protocol and conducted Transcranial Magnetic Stimulation studies in humans.	
Polytechnique Montréal	Montreal, QC
Research Consultant Research Intern (1 of 15 annual research scholarships)	Feb 2024 - May 2025
- Neuroprosthesis to restore movement after spinal cord injury: built a synchronized acquisition system combining camera, motion, electrophysiology and IR, integrated with closed-loop intracortical microstimulation. - Fine-tuned deep learning models for markerless pose estimation in Python and MATLAB, enabling quantitative analysis of functional recovery outcomes.	
Universidad de San Andrés	Buenos Aires, AR
Adjunct Professor, Python Programming	Feb 2025 - Jul 2025
Taught Python with a focus on algorithmic thinking, achieving 80%+ student satisfaction.	

PROJECTS

Neural Phoneme Decoding: deep learning pipeline decoding phonemes from neural time series, ~5% phoneme error rate.

Hand Rehabilitation Platform: seven MediaPipe hand-tracking exercise games with range of motion calibrated per patient, plus a clinician application. Playable demo at agustina-selser.com.

Quadrupedal Walking Robot: SolidWorks assembly to 3D-printed prototype, gait optimized in MuJoCo, 25.6 cm/s.

SKILLS

Programming: Go, Python, C++, TypeScript, SQL, MATLAB.

ML and AI: PyTorch, TensorFlow, scikit-learn, LLM agents, retrieval-augmented generation, MCP, OpenCV, MediaPipe, MNE.

Systems: Temporal, Kubernetes, Docker, Prometheus, CI/CD, AWS, Linux, Git/GitHub.

Neurotechnology relevant skills: Intracranial EEG, neural decoding, closed-loop neurostimulation, TMS, OpenBCI, Altium.