Lora Fanda, M.Sc.

Curriculum Vitae, Sep 2021

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Education

Jan'19–Sep'20 **M.Sc. in Artificial Intelligence**,
IDIAP, Research Institute / Swiss Distance Learning University, Martigny, Switzerland,
Topics: Neural Signal Classification, Selective Attention, Cognitive Neuroscience.
Thesis: Classifying Attentional Dynamics in Adults from Electroencephalography (EEG) signals.
Supervisors: Dr. André Anjos; Dr. Pawel Matusz.

Sep'13–Aug'17 **B.Sc. in Biomedical Engineering**, *minor: Electrical Engineering*,
Case Western Reserve University, Cleveland, Ohio, U.S,
Topics: Biomedical Devices and Instrumentation, Biomedical Analysis.
Thesis: Surface Electromyographic (sEMG) control of a smartphone.
Supervisor: Prof. Andrew Rollins.

Work

Since Sep'21 **Ph.D. Candidate**, *Department of Clinical Neuroscience, University of Geneva (UniGe)*, Geneva, CH
Research Areas: Clinical Research in Epilepsy, Detecting and Predicting Ictal Activity, Functional Brain Mapping.
Supervisor: Dr. Pierre Mégevand.

Aug'19–Aug'21 **Clinical Research Assistant**, *University of Applied Science Western Switzerland (HES-SO)*, Sierre, CH
Research Areas: Clinical Research, Amblyopia, Selective Attention, EEG Data Analysis, Cognitive Neuroscience
Supervisor: Dr. Pawel Matusz, Dr. Micah Murray.

Sep'17–Mar'19 **Research Data Associate**, *FlinkerLab*, NYU Langone Medical Center, NYC, New York, USA
Research Areas: Google Project, Princeton Project, ECoG Data Analysis, Epilepsy, Clinical Research
Supervisor: Dr. Adeen Flinker.

Jul'17–Aug'17 **Undergraduate Research Assistant**, *CWRU Department of Biomedical Engineering*, Cleveland, Ohio, USA
Research Areas: Deep-learning classification, Lung cancer, digitized stained tissue slides.
Supervisor: Dr. Anant Madabhushi.

Jan'13–Jun'17 **Tutor**, *Passaic County Community College (PCCC)*, Paterson, New Jersey, USA – *(part-time)*
Topics: Calculus, Physics, Biology, Chemistry.

Jun'16–Dec'16 **System Verification Engineer**, *Philips Healthcare Systems - North America*, Cleveland, Ohio, USA
Work Area: CT Scan Tests, FDA Procedure, Verification Engineering.

Dec'15–Aug'16 **Undergraduate Research Assistant**, *CWRU Department of Biomedical Engineering*, Cleveland, Ohio, USA
Research Areas: Device Design, sEMG Data Analysis, Grant Writing, Prototyping.
Supervisor: Dr. Abidemi Ajiboye.

Awards - Grants

Awards: **Leadership**, *"Student Leadership Award for Group Community Service". MIND Group, Vice-President*, Dec 2015.
Academic Award, *Phi Theta Kappa (PTK) Honors Society, at PCCC*, May 2012.

Grants: **Case Western Reserve University,** "Student Project Fund Recipient", Think[box] Foundation, *Sep 2017.*

Internships & Additional Training

Jun'16-Dec'16 **System Verification Engineer Internship**, *Philips Healthcare Systems*, Cleveland, Ohio,U.S.

Aug'16 **Medical Imaging Summer School**, *University of Catania*, Favignana, Italy.

Research Projects

2019 **AMBER**, *(link)*, Data Analyst, HES-SO, Switzerland.

2017 **24/7 Project**, *Data Acquisition and Analyst, Neural Analysis for Predicting Cognition*, Google, New York City, U.S.; Princeton University (Hasson Lab), Princeton, U.S.

2015 **Music in Motion**, *(link) Designer and Developer*, Case Western Reserve University, Cleveland, Ohio, U.S.

Workshops [W] and Seminars [S]

Feb 2021 **[S]: Artificial Intelligence in Neuroscience**, *CCNY Biomedical Engineering, NYC, U.S.*

Jul 2019 **[S]: The Importance of Curiosity and Education**, *STEM Summer Scholars Academy, PCCC, Paterson, U.S.*

Jul 2018 **[S]: The Importance of Curiosity and Education**, *STEM Summer Scholars Academy, PCCC, Paterson, U.S.*

Jul 2018 **[W]: Signal Processing Workshop for Bioelectric Signals**, *Princeton University, Princeton, U.S.*

Languages

English, Albanian, Turkish, Macedonian: - Native, **French:** - B2.

Social Engagements [SE] and Hobbies [H]

[SE]: • Medical Instruments for Nations under Development, (2014 – 2017); • Volleyball Trainer/Coach

[H]: • Volleyball • Skiing • Painting • Biking • Traveling

References

Person	Role	Institute	Contact
○ Dr. Adeen Flinker	Flinker Lab Head	NYU Medical Center	adeen.flinker@nyulangone.org
○ Dr. Pawel Matusz	MSc Supervisor	HES-SO, Valais/Wallis	pawel.matusz@hevs.ch
○ Prof. Pierre Mégevand	PhD Supervisor	University of Geneva	pierre.megevand@unige.ch

Publications

Journal Papers

Fanda L., Cid Y.D., Matusz P.J., Calvaresi D. (2021) *To Pay or Not to Pay Attention: Classifying and Interpreting Visual Selective Attention Frequency Features.* In: Explainable and Transparent AI and Multi-Agent Systems. EXTRAAMAS 2021. Lecture Notes in Computer Science, vol 12688. Springer, Cham.

Goldstein A, Zada Z, Buchnik E, Schain M, Price A, Aubrey B, Nastase S, Feder A, Emanuel A, Cohen A, Jansen A, Gazula H, Choe G, Rao A, Kim C, Casto C, Fanda L, Doyle W, Friedman D, Dugan P, Devore A, Flinker A, Hassidim A, Brenner M, Matias Y, Norman A. K, Devinsky O, Hasson U. *Thinking ahead: prediction in context as a keystone of language in humans and machines*. bioRxiv doi: https://doi.org/10.1101/2020.12.02.403477. **preprint**.

Shum J, Fanda L, Dugan P, Doyle W, Devinsky O, Flinker A. *Neural correlates of sign language production revealed by electrocorticography.* Neurology Aug 2020. DOI: 10.1212/WNL.0000000000010639

Conference Papers

Simon-Martinez C, Turoman N, Fanda L, Matusz P. *Can children improve their attention skills in multisensory environments during a single session?* Swiss Society for Early Childhood Research. Nov 2020.

Goldstein A, Jansen A, Slaney M, Price A, Zada Z, Choe G, Aubrey B, Rao A, Fanda L, Norman K, Flinker A, Devinsky O, Brenner M, Hasson U. *Temporal Dynamics of Meaning.* Cognitive Computational Neuroscience, Jan 2019.

Undergraduate Abstracts

Fanda L, Nieto S, Patel J, Spessert E. *Surface Electromyographic (sEMG) control of a smartphone.* Case Western Reserve University, Undergraduate Research Conference. May, 2017.

Conference Abstracts

Shum J, Mahmood B, Fanda L, Dugan P, Friedman D, Doyle W, Devinsky O, Flinker A. *Functional Mapping of Language with High Gamma Electrocorticography.* Society for Neuroscience, Chicago, October 2019.

Shum J, Fanda L, Mahmood B, Friedman D, Dugan P, Doyle W, Devinsky O, Flinker A. *Neural correlates of American Sign Language production revealed by electrocorticography.* Society for the Neurobiology of Language. Helsinki, Finland, August 2019.

Shum J, Mahmood B, Fanda L, Friedman D, Dugan P, Doyle W, Devinsky O, Flinker A. *Functional mapping of language with high gamma electrocorticography using a battery of five language tasks.* NYU Neurology Research Symposium. May 15 2019.

Shum J, Mahmood B, Fanda L, Dugan P, Friedman D, Doyle W, Devinsky O, Flinker A. *Functional mapping of language with high gamma electrocorticography using a battery of five language tasks.* NYU Neuroscience Retreat, April 5 2019.

Shum J, Mahmood B, Fanda L, Friedman D, Dugan P, Doyle W, Devinsky O, Flinker A. *Functional mapping of language with high gamma electrocorticography compared with electrical brain stimulation.* American Epilepsy Society. AES 2018 Conference New Orleans, December 2018

Shum J, Fanda L, Mahmood B, Friedman D, Dugan P, Doyle W, Devinsky O, Flinker A. *Neural correlates of sign language and spoken language revealed by electrocorticography.* Society for Neuroscience, San Diego, November 2018.

Ozker M, McAlister M, Fanda L, Mahmood B, Dugan P, Friedman D, Doyle W, Devinksy O, Flinker A. *Intracranial neurophysiology of auditory feedback control during speech production.* Society for Neuroscience, San Diego, November 2018.

Ozker M, McAlister M, Fanda L, Shum J, Dugan P, Friedman D, Doyle W, Devinsky O, Flinker A. *Neural correlates of delayed auditory feedback during speech production investigated by electrocorticography.* SfN, San Diego, November 2018.

Shum J, Fanda L, Friedman D, Dugan P, Devinsky O, Flinker A. *Neural correlates of sign language and spoken language revealed by electrocorticography.* NYU Neurology Research Symposium. May 16 2018.