Speech Therapist | Programmer | Researcher

Francesco Petriglia

+39 351 916 6127

@unito.it

francesco.petriglia@centropaideia.org

ORCID

Research Gate

Master's in **Psychological Sciences** (University of Turin) and Bachelor's in **Speech Therapy** (University of Rome "Tor Vergata"). Clinical and research expertise in **neuropsychological rehabilitation**, **speech therapy**, and computational applications to language. Research fellow in national PRIN 2022 projects (*SMOOTH*, *ACTively*), focusing on **NLP** and automation of transcription and discourse analysis pipelines. Lead scientist of *Talkidz*, an NLP-based software for child language assessment.

Experience

Research Fellow *University of Turin* — 03/2025 – present

PRIN 2022 ACTively   Assessment and enhancement of pragmatic and narrative skills in healthy aging

Responsibilities

- Multilevel assessment of pragmatic and narrative skills in aging
- Development of NLP pipelines for automated analysis
- Collaboration in EU-funded project NextGenerationEU

Speech Therapist & Researcher *Fondazione Paideia | Centro Paideia* — 09/2020 – present

Clinical activity and applied research   Speech-language rehabilitation; Talkidz software

Responsibilities

- Clinical rehabilitation of children with ASD, Apraxia of Speech, Language Impairments
- Individualized evidence-based treatment planning
- Academic tutoring and thesis supervision
- Lead scientist of *Talkidz*, NLP-based child language evaluation tool

Research Fellow *University of Udine* — 03/2024 – 02/2025

PRIN 2022 SMOOTH   Standardization of multilevel discourse analysis procedures

- Research on narrative discourse and cognition in healthy adults
- Application of NLP to clinical transcription and analysis

Speech Therapist & Co-director *Centro "Plòion"* — 02/2018 – 09/2020

- Rehabilitation of children with with ASD, Apraxia of Speech, Language Impairments
- Multidisciplinary team coordination
- Strategic planning and clinical management

Speech Therapist & Co-director *Centro "Tralerighe"* — 08/2015 – 07/2018

- Clinical rehabilitation in neurodevelopmental disorders
- Implementation of standardized and innovative protocols
- Administrative and organizational responsibilities

Education

M.Sc. in Sciences of the Body and the Mind *University of Turin*   2018 – 2020

- Graduated with honors (110/110 cum laude)
- Thesis: *Embodiment, tool-use and expertise: an experimental hypothesis in tennis*

B.Sc. in Speech Therapy *University of Rome "Tor Vergata"*   2011 – 2014

- Graduated with honors (110/110 cum laude)
- Thesis: *The caregiver questionnaire as an outcome measure in aphasia rehabilitation*

Research Projects

Talkidz   Lead Scientist

- NLP-based tool for child language assessment using IPA transcription

Sugar, Salt & Pepper   Researcher

- Social robotics project using Pepper robot for children with ASD

SMOOTH   Research Fellow

- NLP tools for discourse transcription and analysis in healthy aging
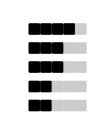
ACTively   Research Fellow

- NLP pipelines for pragmatic and narrative analysis in aging and clinical groups

Technical Skills

Python
Visual Basic
R
HTML5
CSS3

Experience in developing NLP pipelines, data labeling and analysis, and computational tools for clinical and research purposes. Skilled in automation of discourse analysis, integration of computational methods in speech therapy, and application of statistical and programming tools to neuropsychological data.

Selected Publications

- **Unveiling the dynamics of discourse production in healthy aging and its connection to cognitive skills.** (Marini, A., Petriglia, F., D'Ortenzio, S., Bosco, F. M., & Gasparotto, G.; 2025) *Discourse Processes* 62(6–7), 479–501. DOI: 10.1080/0163853X.2025.2507548

- **The integration of computational linguistics in speech therapy practice.** In **Manual of Speech Therapy in Childhood**, Vol. 3. Erickson. ISBN: 978-88-590-3616-6

- **Ontologies and Open Data for Enriching Personalized Social Moments in Human Robot Interaction** (Gena C., Damiano R., Mattutino C., Mazzei A., Brighenti S., Nazzario M., Meirone A., Quarato C., Miraglio E., Ricciardiello G., Petriglia F., Liscio F., Piccinni G., Mazzotta L., Pecone C., and Ricci V.; 2022) *Adjunct Proceedings of the 30th ACM Conference on User Modeling, Adaptation and Personalization (UMAP '22 Adjunct). Association for Computing Machinery, New York, NY, USA,* 151–154. DOI: 10.1145/3511047.3537690