GIULIO STARACE

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EDUCATION

MSc Artificial Intelligence — Amsterdam, The Netherlands
University of Amsterdam — *September 2021 - 2023 (ongoing)*

- Current GPA: 8.33

ABC Summer School - Computations in Consciousness and Perception — Amsterdam, The Netherlands
University of Amsterdam — *June 2022*

- 2-week full-time programme with talks by experts from the fields of computational neuroscience, psychology and AI.
- Proposed a bio-plausible AuGMEnT model for long-term memory contra catastrophic forgetting. giuliostarace.com/ltm.

BSc Hons. in Natural Sciences (Physics & Computer Science) — Durham, UK
Durham University — *October 2016 - July 2019*

- Natural Sciences degree allows candidates to take modules from selected departments
- Achieved First-Class Honours

EXPERIENCE

University of Amsterdam - AIRLab — **Amsterdam, The Netherlands**
Part-time Researcher — *April 2022 - October 2022 (ongoing)*

- Working on efficient cross-lingual adaptation of multi-task monolingual language models

ESO - European Southern Observatory — Cerro Paranal, Chile
Research Engineer — *September 2020 - September 2021*

- Worked on high-resolution forecasting of Astronomical Seeing using Machine Learning methods.
- Ran preliminary ARIMA-based approach before moving to LSTM neural networks.
- Led and focused effort on the development on unified data processing and evaluation pipeline.

Software Engineering Intern — *August 2019 - January 2020*

- Designed, developed, tested and deployed a system for displaying information from the observatory's several ticket systems in a unified and personalized manner via Microsoft Graph API.

Video.io - startup — Remote, Anywhere
ML Engineer — *February 2020 - June 2020*

- Worked on implementing abstractive summarization of dialogic video. (Pandas, Google Cloud Speech API).
- Real time speech to text captioning of live video streams (NodeJS Streams, FFmpeg, HLS/DASH video).
- Revamped full-stack of internal experimental website (NodeJS, GraphQL, PostgreSQL, Docker, NGINX, React).

JAXA - Japan Aerospace Exploration Agency — Sagamihara, Japan
Research Intern — *August 2018 - October 2018*

- Developed software to estimate visibility of satellite given simulated orbits and thermal constraints.
- Performed multi-parameter regression on ro-vibrational dataset so to characterize starburst galaxy NGC253.

PUBLICATIONS AND PERSONAL PROJECTS

- Jille van der Togt, Lea Tiyavorabun, Matteo Rosati, Giulio Starace, 2022. ReScience C 8, #40. 10.5281/zenodo.6574704.
- **GPTrue or False** Browser extension showing the likelihood that given body of text was generated by OpenAI's GPT-2.
- **iclingo** Jupyter Kernel for answer set programming with clingo.
- **bLANS** Tool for converting sane-LaTeX to ANS-flavoured LaTeX and viceversa.

MISCELLANEOUS QUALITIES

Languages	English (Fluent), Italian (Fluent), Spanish (Professional)
Programming Languages	Python, Javascript, SQL, C/C++, HTML/CSS
Frameworks and Specs	NodeJS (Express), GraphQL, React, Protocol Buffers
Libraries	NumPy, PyTorch, Pandas, Hugginface, matplotlib, OpenCV, statsmodels, sklearn
Technologies	Vim, Git, VSCode, ssh, Latex, FFMPEG, Docker