



Alexis Thual

4th-year PhD student in neuroscience

Full-stack developer & Machine Learning engineer

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🐱 github.com/alexisthual

in linkedin.com/in/alexisthual

PROFESSIONAL EXPERIENCE

- London**
jun. 2023
oct. 2023
Research Scientist intern - FAIR Meta, Brain and AI team
Developed and published a method to transfer algorithms that decode visual perception from fMRI from one human individual to another
- Paris**
nov. 2019
jan. 2018
Founder - Arkhn
Open-source project meant to standardize healthcare data; lead technical development and managed a team of 8
arkhn.com
- Paris**
nov. 2019
jul. 2018
Data scientist & web developer - Bureau Ouvert de l'Assemblée Nationale
Animated weekly meetings at the French Parliament; developed web-based tools fostering public action transparency
budget.parlement-ouvert.fr, jo.parlement-ouvert.fr, transparence.parlement-ouvert.fr, questions.parlement-ouvert.fr
- Paris**
aug. 2018
apr. 2018
Research intern - Laboratoire de Sciences Cognitives et Psycholinguistique at ENS Ulm
Implemented non-supervised segmentation of audio signal to mimic language acquisition of phonemes and words
1 publication at SLT 2018 : bit.ly/38cjGYZ
- London**
aug. 2017
apr. 2017
Forward deployed software engineer intern - Palantir
Contributed to developing web-applications, managing a Hadoop cluster and implementing industry optimisation algorithms

ACADEMIC BACKGROUND

- Paris**
nov. 2020
now
Neurospin (CEA) & Parietal (Inria) - PhD in neuroscience
My research consists in using Optimal Transport so as to compare cortical structures of human and non-human primates and training brain decoders. This work is done under the supervision of Stanislas Dehaene and Bertrand Thirion
- Paris**
sept. 2018
sept. 2017
ENS Cachan - Research master
Master Mathématiques, Vision, Apprentissage
Natural Language Processing, Computer Vision, Signal Processing, Convex Optimization, Reinforcement Learning, Graphs in Machine Learning, Models for Neuroscience
- Paris**
jul. 2018
sept. 2014
École polytechnique - Engineering curriculum
Master equivalent in applied maths, computer science and physics; majored in statistics and computer science
- Paris**
jul. 2014
sept. 2012
Lycée Louis-Le-Grand - Preparatory school
Majored in mathematics, physics and computer science

OTHER SKILLS

Public speaking
Team management
Illustration and design

PERSONALITY

Traits Enthusiastic, persistent,
organised, curious

LANGUAGES

Français	Mother tongue
English	Full proficiency C2 (2011)
Mandarin	Intermediate HSK4 (2016)

PUBLICATIONS

Aligning brain functions boosts the decoding of visual semantics in novel subjects

Alexis Thual, Yohann Benchetrit, Felix Geilert, Jérémy Rapin, Iurii Makarov, Hubert Banville, Jean-Rémi King

arXiv 2023

Individual Brain Charting third release, probing brain activity during Movie Watching and Retinotopic Mapping

Ana Luísa Pinho, Hugo Richard, Michael Eickenberg, Alexis Amadon, Elvis Dohmatob, Isabelle Denghien, Juan Jesús Torre, Swetha Shankar, Himanshu Aggarwal, Ana Fernanda Ponce, **Alexis Thual**, Thomas Chapalain, Chantal Ginisty, Séverine Becuwe-Desmidt, Séverine Roger, Yann Lecomte, Valérie Berland, Laurence Laurier, Véronique Joly-Testault, Gaëlle Médiouni-Cloarec, Christine Doublé, Bernadette Martins, Gaël Varoquaux, Stanislas Dehaene, Lucie Hertz-Pannier, Bertrand Thirion

arXiv 2023

Should one go for individual-or group-level brain parcellations? A deep-phenotyping benchmark

Bertrand Thirion, Himanshu Aggarwal, Ana Fernanda Ponce, Ana Luísa Pinho,

Alexis Thual

Brain Structure and Function 2023

Aligning individual brains with Fused Unbalanced Gromov-Wasserstein

Alexis Thual, Huy Tran, Tatiana Zemskova, Nicolas Courty, Rémi Flamary, Stanislas Dehaene, Bertrand Thirion

NeurIPS 2022

From deep brain phenotyping to functional atlasing

Bertrand Thirion, **Alexis Thual**, Ana Luísa Pinho

Current Opinion in Behavioral Science 2021