

# Anthony M. V. Jakob

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## CONTACT INFORMATION

Murifeldweg 62  
3006 Bern  
Switzerland

Email: [anthony\\_jakob@hms.harvard.edu](mailto:anthony_jakob@hms.harvard.edu)

Web: <https://amvjakob.github.io>

## EDUCATION

**Harvard University** 2021 - 2022  
Master's Thesis, Computational Neuroscience  
Advisor: Sam Gershman

**École Polytechnique Fédérale de Lausanne** 2019 - 2022  
M.Sc., Life Sciences Engineering and Computational Neuroscience

**University of British Columbia** 2018 - 2019  
Exchange, Computer Science

**École Polytechnique Fédérale de Lausanne** 2016 - 2019  
B.Sc., Life Sciences Engineering

**Gymnasium Kirchenfeld** 2011 - 2015  
Gymnasial Matura  
Classes from the B.Sc. in Physics at the University of Bern (13 ECTS)

## PROFESSIONAL EXPERIENCE

**McKinsey & Company** since 2022  
Consultant, Digital Technology

**Clubhouse Hockey** 2021 - 2022  
Full-Stack Software Engineer

**Centre Hospitalier Universitaire Vaudois** 2020 - 2021  
Data Scientist

**Infinight** 2017 - 2020  
Software Engineer, Web and Application Development

**Independent Translator** since 2016  
Translations to and from French, German and English

**Gymnasium Kirchenfeld** 2015  
High School Teacher, Mathematics

HONORS AND AWARDS	EPFL Best Life Sciences Engineering Master's Thesis	2022
	Bertarelli Fellowship in Translational Neuroscience and Neuroengineering	2021 - 2022
	EPFL Excellence Fellowship	2019 - 2020
	EPFL Mobility Fellowship	2018
	Meyer Award (Excellence in Natural Sciences)	2015
	ECLF French Award	2008 - 2011
PUBLICATIONS	<b>Jakob, A.M.V.</b> and Gershman, S.J. (submitted). <a href="#">Rate-distortion theory of neural coding and its implications for working memory.</a>	
	<b>Jakob, A.M.V.</b> , Mikhael, J.G., Hamilos, A.E., Assad, J.A., Gershman, S.J., 2022. <a href="#">Dopamine mediates the bidirectional update of interval timing.</a> Behavioral Neuroscience, 136(5), p.445.	
RESEARCH EXPERIENCE	<b>Laboratory of Computational Neuroscience, EPFL</b> Neural signatures of surprise and surprise-based learning in the human brain (Julia, <a href="#">Code</a> )	2020
	<b>Solar Energy and Building Physics Laboratory, EPFL</b> SwissPV: Swiss household-level solar panel identification from ortho-rectified satellite images (Python, <a href="#">Code</a> )	2019
TEACHING EXPERIENCE	<b>PHYS-207: Quantum Physics, EPFL</b> Instructor: Giovanni Dietler	2020
	<b>PHYS-201: Electromagnetism, EPFL</b> Instructor: Giovanni Dietler	2019
	<b>BIO-201: Simulations of Neural Networks, EPFL</b> Instructor: Jacques Rougemont	2019
	<b>CS-119: Organic Chemistry, EPFL</b> Instructor: Luc Patiny	2018
	<b>CH-160: Advanced Chemistry, EPFL</b> Instructor: Samuel Terrettaz	2017
	<b>CS-119: Information Technology, EPFL</b> Instructor: Anastasia Ailamaki, Marcel Salathé	2017

	<b>Sophomore Mathematics</b> , Gymnasium Kirchenfeld Instructor: Anthony Jakob	2015
INVITED TALKS	Harvard CBS NeuroTheory Kickoff. March 14th, 2022.  NiH Site Visit Symposium. November 23rd, 2021.  Harvard CBS Seminar. October 1st, 2021.	
LANGUAGES AND FRAMEWORKS	<b>English</b> (Native), <b>French</b> (Native), <b>German</b> (Native), <b>Italian</b> (B2), <b>Spanish</b> (B2)  <b>Bash</b> , <b>C++</b> , <b>C#</b> , <b>Dart</b> (Flutter), <b>Java</b> (Android), <b>JavaScript</b> / <b>TypeScript</b> (Node.js, Express, Angular, Deno), <b>Julia</b> (Flux.jl, Turing.jl), <b>MATLAB</b> , <b>PHP</b> , <b>Python</b> (Pandas, PyTorch, Tensorflow), <b>R</b> , <b>SQL</b>	
SKILLS	<b>Fundamentals:</b> Parallel and distributed computing, Unit testing, CI/CD (Jenkins), Cloud computing (Google Cloud, AWS), Agile development, Version control (Git)  <b>Programming:</b> Data structures, Optimization (Duality), Linear pro- gramming, Dynamic programming, Probabilistic programming  <b>Machine learning:</b> Random Forest, SVM, KNN, PCA, ICA, NNMF, GLM, Graphical models, Deep learning, Reinforcement learning, Computer vision  <b>Web development:</b> Frontend, Backend, REST API, Database man- agement	
SERVICE AND OUTREACH	<b>Data Analytics Group</b> , EPFL Co-Founder of <b>Data Analytics Group at EPFL</b> , a student association promot- ing Data Science on campus  <b>Swiss Sequoia Club</b> Co-Founder of <b>Swiss Sequoia Club</b> , a platform for entrepreneurship-minded students from EPFL, ETH and HSG  <b>Mentor for first-year students</b> , EPFL Academic support around transition to online classes  <b>Education Outreach Department Representative</b> , EPFL	2020 - 2022    2020 - 2022    2020 - 2021   2019 - 2020

Promotion of EPFL in German-speaking Switzerland

**AISEC Lausanne**

2019 - 2020

Data Analyst

**Life Science Engineering Association, EPFL**

2017 - 2018

Vice-President of Events committee

**Coach for first-year students, EPFL**

2017 - 2018