# **Hugo AFFATICATI**

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## Technical Experience

Microsoft Atlanta, GA, USA

Technical Program Manager II

Sep 2023 - current

- Demonstrated Azure AI capabilities with semi-annual leading MLPerf competition results of AI Training and Inferencing on cutting-edge H100 GPUs for natural language and image processing models
- Assessed Microsoft's latest H100-based virtual machines with NVIDIA benchmarks, including NeMo Megatron and MLPerf inference & training, to establish performance standards and total cost of ownership for customers in Generative AI
- Optimized performance for key AI clients, accelerating training and reducing costs up to a 6x factor through latest code and software stack implementation using Python
- Influenced marketing strategies by creating 10+ technical blog posts and tutorials, accumulating over 20k views

#### Technical Program Manager I

Sep 2022 - Aug 2023

- Pioneered training GPT-3 based Large Language Models with NeMo Megatron framework at scale on 1k+ GPUs achieving 95% scalability in the cloud
- Reached sub-2-min BERT Model training by implementing flash attention mechanism with Stanford AI Research Group
- Headlined key conferences, including Microsoft Build (#1 technical talk) and Super Computing 2022, sharing AI potential to prospective customers

Program Manager

**Aug 2021 – Aug 2022** 

- Led Microsoft's MLPerf Training and Inference submissions by optimizing Linux and Python ML code on A100 GPUs demonstrating unmatched performance, latency, and accuracy on virtual machines
- Benchmarked 4 GPU generations (T4, V100, A10, A100) across ML and DL models, showcasing 2X performance and cost gain per generation
- Decoded AI workloads through writing 15+ technical blog posts and documentation (approx. 35k views) for beginners

#### KARL Tech (startup)

Bordeaux, France Mar 2019 - Apr 2020

Co-founder, Entrepreneur, CEO

- Developed software to improve color rendering for products in online stores using MATLAB
- Coded innovative image processing algorithm, acknowledged with the first prize in Innovation among 48,000 students at Paris-Saclay University for its efficiency and accuracy
- Exhibited and pitched to 100s decision makers for 4 days at CES 2020, world's leading tech tradeshow, as representant of France's official delegation
- Selected for "product with high potential" from 30 start-ups for three months of incubation at Station F

## Leadership Experience

Microsoft Atlanta, GA, USA

Chair of GLEAM Southeast (ERG for LGBTQ+ employees and allies at Microsoft)

Mar 2022 - current

- Managed a 13-person leadership team across 6 states (150 members) with bi-weekly meetings and dedicated mentorship
- Tripled annual budget to \$30,000 by starting strategic partnerships between Microsoft's ERGs (geo and business based)
- Built a community with monthly morale events and monthly safe-space meetings to address D&I concerns and policies
- Initiated a summit for top 10 tech companies in Atlanta to deepen local impact with shared resources and network
- Received Microsoft's Leadership Award for cultural impact in 2023 (highest membership and budget growths)

## Education

## Yale University, Graduate School of Arts and Sciences – MS in Applied Physics

2020-2021

Research: Magic State Fidelity for Quantum Computation Optimization with Prof. S. Puri

Improving precision for Optical and Quantum Electronics with entangled photons with Prof. P. Rakich Adapting Maxwell's equation for a general laser theory with Prof. A. Stone, Deputy Director of Yale Quantum Institute

Paris-Saclay University, Institut d'Optique Graduate School – BS and MS in Engineering & Quantum Physics

BS GPA: 3.97/4.00 and MS GPA 4.00/4.00, Mentored by Nobel Prize-winning physicist Gérard Mourou

2018-2020

Exchange program: Norwegian University of Science and Technology, Spring 2019

Relevant coursework: Atomic Physics, Quantum Mechanics, Fourier and Non-linear Optics, Experimental Research

## PSL University, Université Paris-Dauphine – BS in Applied Economics

2019-2020

Bachelor in Applied Economics, condensed into one year, for students of Top Engineering Schools Relevant coursework: Macroeconomics, Microeconomics, Econometrics, and International Economics

### **CPGE Janson-de-Sailly** – Classe préparatoire

2016-2018

Competitive two-year undergraduate honors program (triple major in Mathematics, Physics, and Chemistry) for entrance into top French engineering schools