

Alexandre Djerbetian

Research Software Craftsman

Research Software Engineer with experience in applied research on LLMs (Google) and web development.

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EXPERIENCE

Research Software Engineer

4/2021 – present

Google Tel Aviv

Applied research on LLMs
Stack: python + internal tools

- **Improved LLM's capabilities on downstream tasks by:**
 - Frequently analyzing losses **manually** to identify areas for improvement
 - Crafting specific automatic metrics when relevant
 - Utilizing a mix of few-shot, fine-tuning, pre-training, and distillation
- **Guided people on how to conduct research in machine learning**
 - Created a **methodology** for doing "**Unspecified research**"
 - Sent 2 months to Ghana to help the local team
 - Lead efforts in 2 long term projects (2 - 3 other people)
- **Developped internal tools for the team** (15 people)
- **Promoted to Level 5** - on the path to Level 6

Software Architect

7/2018 – 2/2021

360Learning (30 developers)

Online learning platform - Leader in France
Stack: NodeJS, VueJS, MongoDB, Docker, TypeScript, Linux

- **Lead backend architect**
 - Increased test coverage from **25% to 70%**
 - Reduced average function size from **19 to 8 lines**
- **Trained the team on state-of-the-art coding practices**
 - Held a **monthly book club** on code architecture and practices
 - **Onboarded 6 new members**, and confirmed 4 after their probation
- **Guest speaker in other companies**
 - See youtu.be/bT4fnb7XcuA for the talk at Evaneos (40 developers)

CTO

1/2017 – 2/2018

Libheros (5 developers)

Early stage startup - equivalent of Doctolib for nurses
Stack: NodeJS, AngularJS, Angular, Ionic, MySQL, php

- **Hired and managed a team of 5 developers**
 - Built a team spirit with a weekly seminar on Clean Code

Freelance Web Development

3/2016 – 9/2016

PwC

- Created an online fiscal visualization tool for new European regulations

OTHER INTERESTS

✓ **Teaching Math:** Taught 2 classes of ~30 pupils for a year in middle school

🎸 **Singing Rock:** "Caus' I'm a TNT!"

EDUCATION

Master of Research in Geometry Processing

Technion (Israel)

2013 – 2016

Submitted a paper to SIGGRAPH on a new finite elements basis for vectors fields on triangle meshes.

Engineering Degree in Computer Science

Ecole Polytechnique (Paris)

2010 – 2014

TECHNOLOGIES

Python Google Colab TypeScript

NodeJS VueJS

FAVORITE BOOKS

Clean Code book series

Growing Object-Oriented Software

Domain Driven Design

Design Patterns

PROJECTS

📺 Seminar on architecture (French)
youtu.be/bT4fnb7XcuA

🔗 The Payroll Case Study
github.com/adjerbetian/bobs-payroll

🏓 **Padel & Squash**