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 – ongoing

Google Israel
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
- **Coached people on the research methodology**
  - 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 L5** - on the path to L6

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!"*

🎾 **Padel & Squash**

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