

Information technology

& the job market

2022 English version

Intro

Job market trends (40 years)

The exception of Information Technology

University & next steps

My 1st job



Adzuna is lending the time to prepare and present this talk

The opinions expressed in this presentation are personal and not necessarily  
those of Adzuna

Graphics sources

- Images: attribution per image
- Icons: [Twitter Emoji \(Twemoji\)](#)
- Flags: Wikipedia articles



vkatsikaros at gmail dot com

The slides will be given, all resources are available

Questions in the chat - let's discuss at the end

## ValueMyCV

### WHAT ARE YOU WORTH?

£0

JACK'S CV VALUE

[Upload your CV today](#)

SEARCH JOBS

What? Where?

[Search](#) [Filter](#)

Let's restart Britain's jobs engine. [1000's of remote jobs](#) > or [find out more](#) >

## Adzuna - zero in on the right role

### Every job

Searching for the right job is hard work. We've brought

### Smart matches

We've spent a decade developing a more

### Great data

Using the best tools is a no brainer. Find local salary

## Find a job

[Sign in](#) [Create account](#) [Employers](#) [Cymraeg](#)

Tell us about this service – your feedback will help us to improve it.

What?  
for example job, company, skills

Where?  
for example city, county or postcode

[Search](#)

[Advanced search](#)

## Apply for jobs

You can search for jobs without an account. But to apply you need to create an account or sign in.

[Create account](#) >

Already have an account? [Sign in](#)

## Latest update

### JobsAware

To stay safe in your job search and flexible work we recommend that you visit [JobsAware](#) for information and to get free, expert advice for safer work.

### Find an apprenticeship

Like the idea of becoming an apprentice? Use [Find an apprenticeship](#) to search, register and apply for apprenticeship vacancies.

### Jobseekers from abroad

Before applying for jobs please [check whether you need a visa](#) to work in the UK.

## Popular categories

[Trade and construction jobs](#)  
[Hospitality and catering jobs](#)  
[Maintenance jobs](#)  
[Logistics and warehouse jobs](#)  
[Healthcare and nursing jobs](#)

## Popular locations

[London](#)  
[Glasgow](#)  
[Liverpool](#)  
[Manchester](#)  
[Leeds](#)

## Popular searches

[Cleaner jobs](#)  
[Warehouse jobs](#)  
[Retail jobs](#)  
[Driver jobs](#)  
[Labourer jobs](#)

[Browse all jobs](#) =



What? 

Where? 

[Advanced](#)

## 645 Python sql Jobs in London

Average salary

**£61,997**

Receive the newest jobs for this search **by email:**



### Filter results

Sort by

+

Salary

+

Remote

+

Location

+

Category

+

Company

+

Contract type

+

Hours

+

### Related searches





### Data Developer Python SQL - WfH

**£55000 - £70000 PER ANNUM + BENEFITS** - CLIENT SERVER -

LONDON, SOUTH EAST, SOUTH EAST LONDON

Data Developer London to £70k Remote Interview WFH Data Developer / Engineer (**Python SQL** BI) Remote Interview WFH. Are you a data technologist seeking a role where you'll ... a competitive salary (to £70k) plus benefits. Apply now or call 020 8016 4456 to find out more about this Data Developer / Engineer (**Python SQL** BI) opportunity. This job was originally posted ...



### Data Engineer - Python, SQL, Spark

**JOBSWORTH: £ 52,136 P.A.** - OLIVER BERNARD - LONDON, SE11

Data Engineer - **Python, SQL**, Spark Location: London, N1C 4AX (Remote currently)Salary: £60,000 - £70,000Industry: E-commerceTech Stack: **Python, SQL**, Pandas, Spark, AWSGreat ... opportunity for a talented Data Engineer (**Python, SQL**, Pandas, AWS) who also has strong experience of developing applications using Python to join a business that is entrusted ...



### Python/ SQL Developer

**JOBSWORTH: £ 46,837 P.A.** - AUSTIN FRASER - LONDON, LONDON

**Python/ SQL** Developer 3 month contract London/ Remote Austin Fraser are currently partnering with an exciting London-based start up who have some interesting projects coming up ... and are urgently looking for a **Python/ SQL** Developer to join them. This will be a 3 month contract initially with strong possibilities of multiple extensions beyond this. It will be fully remote ...





- TLDs: 20
- Traffic: ☆☆☆M visits/month
- Web scraper: ☆☆☆M ads/day
- Partner network: ☆☆☆G ads/day
- User facing DB: ☆TB storage
- Sent: ☆M emails/day
- Machines: ☆☆☆

In 2020-21, we estimate we have helped 1M people find jobs 🎉



Food for thought



<https://example.com> "Μπλα Μπλα"

If you need to lookup the source



<https://example.com> "Μπλα Μπλα"





The job market



An aerial photograph of a desert landscape. A dark asphalt road with yellow and white lane markings runs vertically through the center of the image. The road is partially buried under large, smooth sand dunes that have drifted onto it from the sides. The sand is a light tan color with visible ripples and tracks. The overall scene conveys a sense of isolation and environmental challenge.

The job market conditions

are not ideal



“The crisis caused an explosion in uncertainty and insecurity and severe lack of trust of the labor force when it comes to the protection of fundamental labor rights and their standard of living”



“In 2021 Greece recovered from the pandemic shock [...] However, if the cost of living is taken into account, Greece has the 2nd smaller per capita GDP in EU. Moreover, it’s the only state in EU where this metric is less than the 2007 levels.”



“Salaries were adjusted, but the increased competition that should have helped to bring prices down never happened. The burden of the internal devaluation fell excessively on labor.”



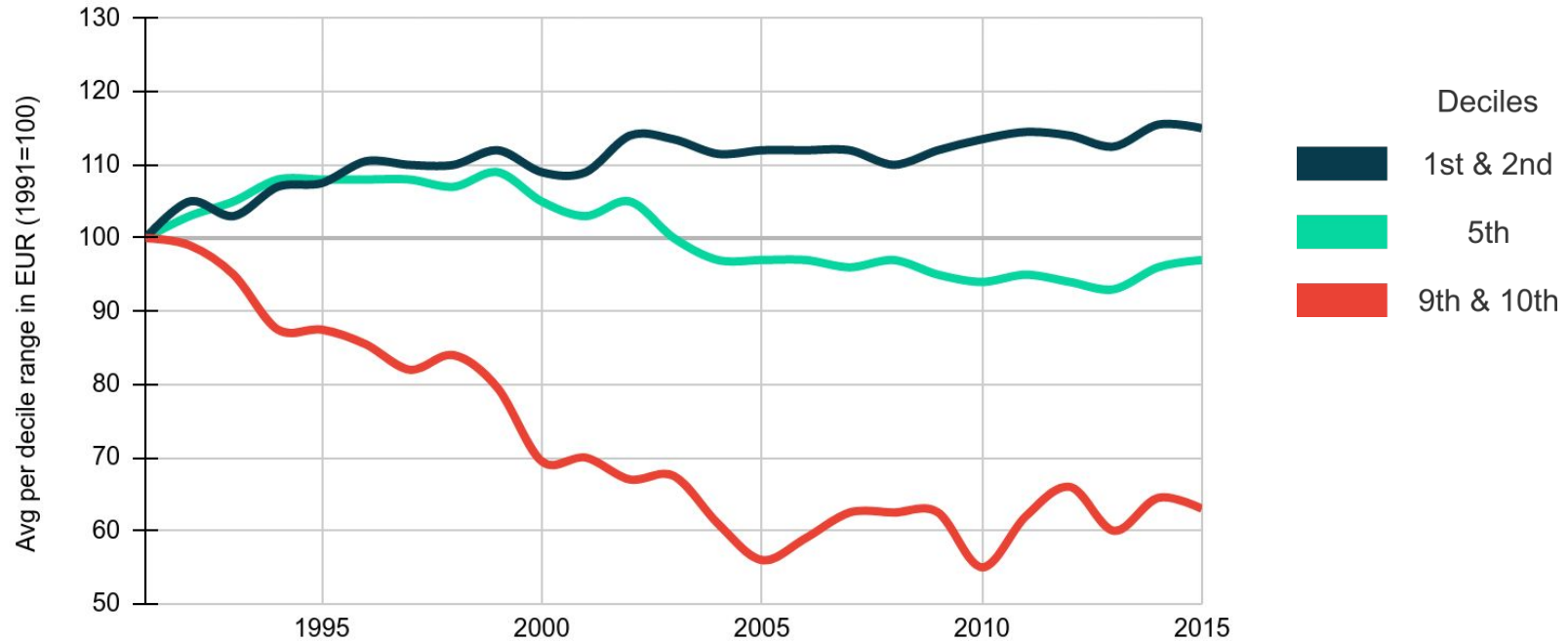
“Several years of recession and austerity measures have persistently challenged the constitutionally protected right to work and the right to an adequate standard of living.”

“Salaries were drastically cut [...] and working conditions weakened”





## Real annual income 1991-2015





“1 in every 8 children in America (σημ ΗΠΑ) is experiencing shockingly high rates of food insecurity, school drop out, teenage pregnancy and/or child deaths”



“Real wages rose at the top of the distribution, whereas wages **rose at lower rates or fell at the middle and bottom.**”





Information Technology

is one of the exceptions



# Staff shortage

“One in 5 enterprises employed Information and Communication Technology specialists”

“In 2017, more than half of EU enterprises that recruited or tried to recruit Information and Communication Technology specialists had difficulties in filling ICT vacancies.”



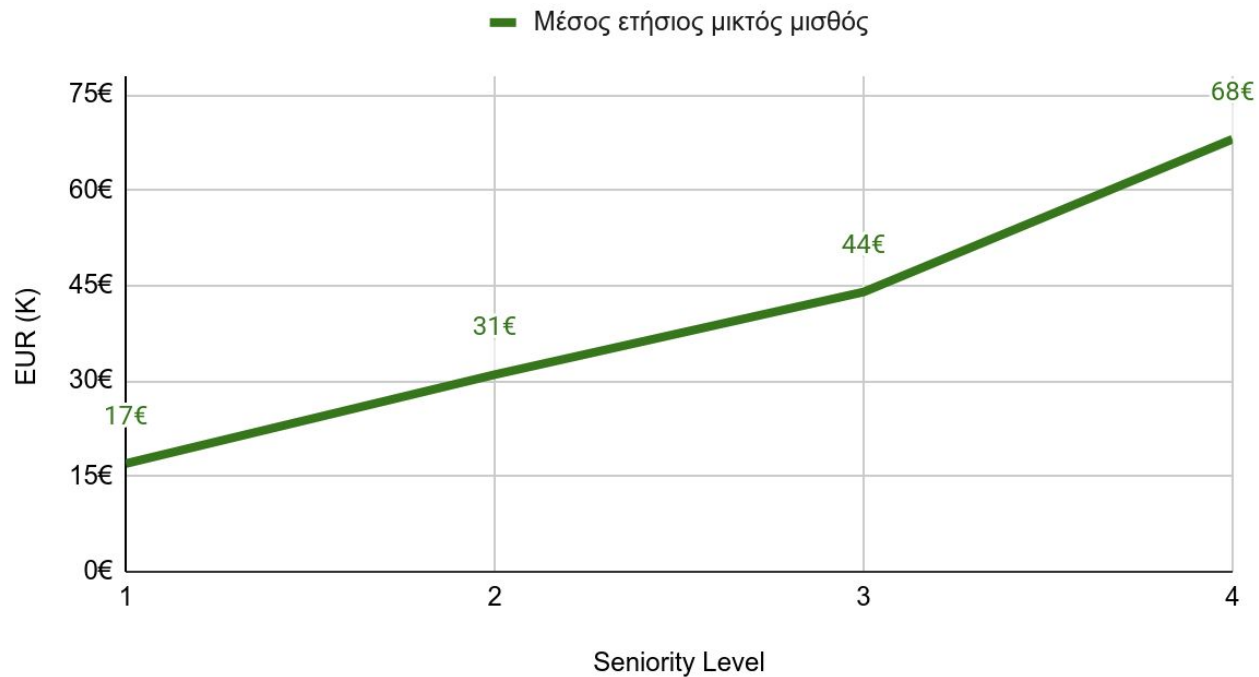
# Staff shortage

2015: “Europe could face a shortage of more than 800,000 skilled ICT workers by 2020”

2017: “shortages of IT specialists are forecasted to reach around 500,000 by 2020 and we estimate that Europe would need 50,000 new high-tech leaders each year till 2025”.



## Backend Software Engineer - Individual Contributor





london, uk

backend developer

graduate degree (e.g. ma, ms)

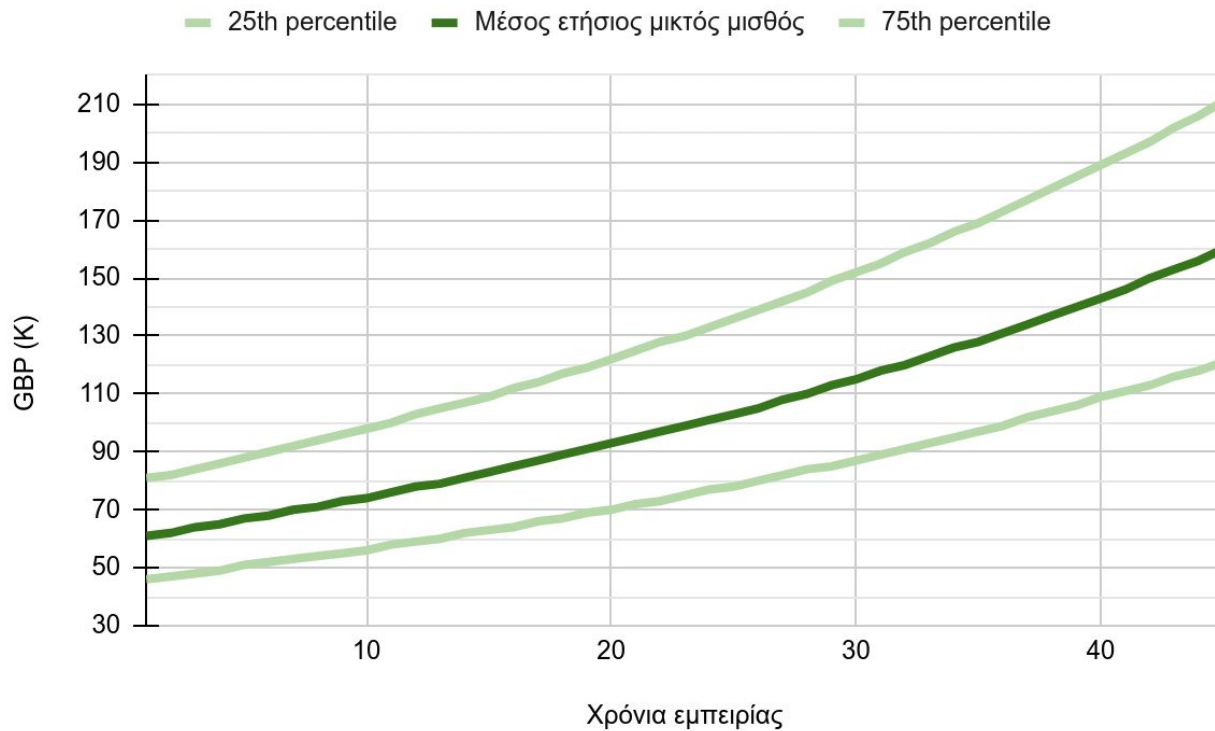
postgresql

amazon-web-services

linux

go

python





london, uk

backend developer

graduate degree (e.g. ma, ms)

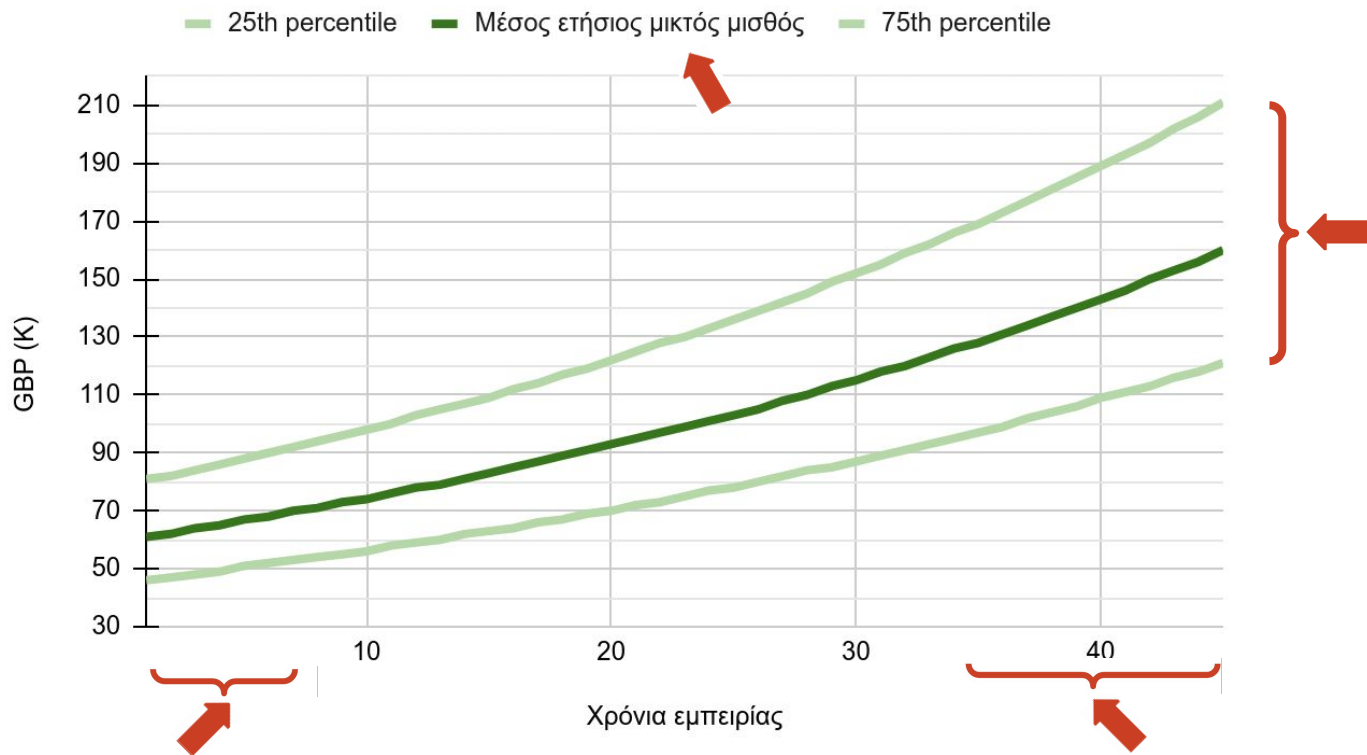
postgresql

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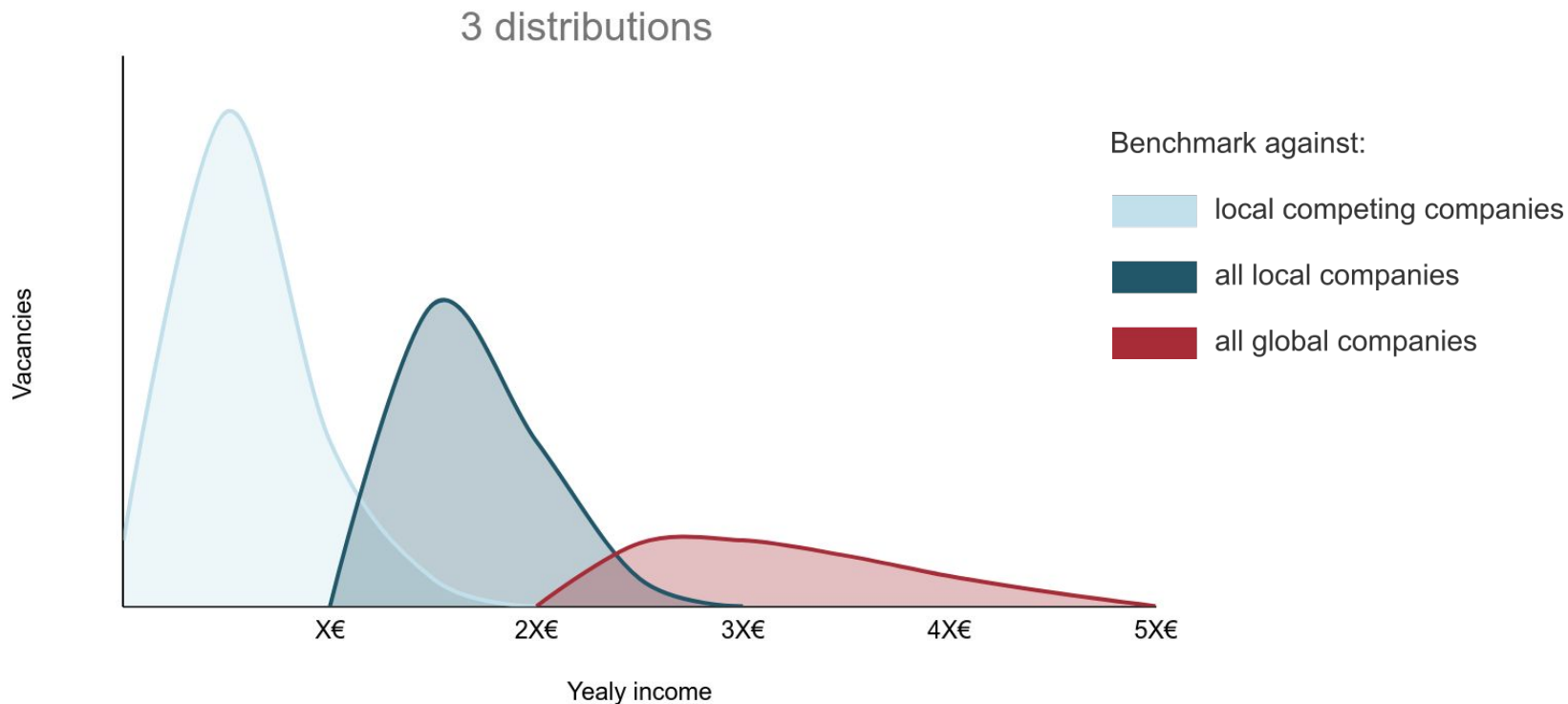


DevOps role  
USD (K)

35 50 75 100 125 150 250



# High income cities/countries





# Top tier \*

\* San Francisco top 10%

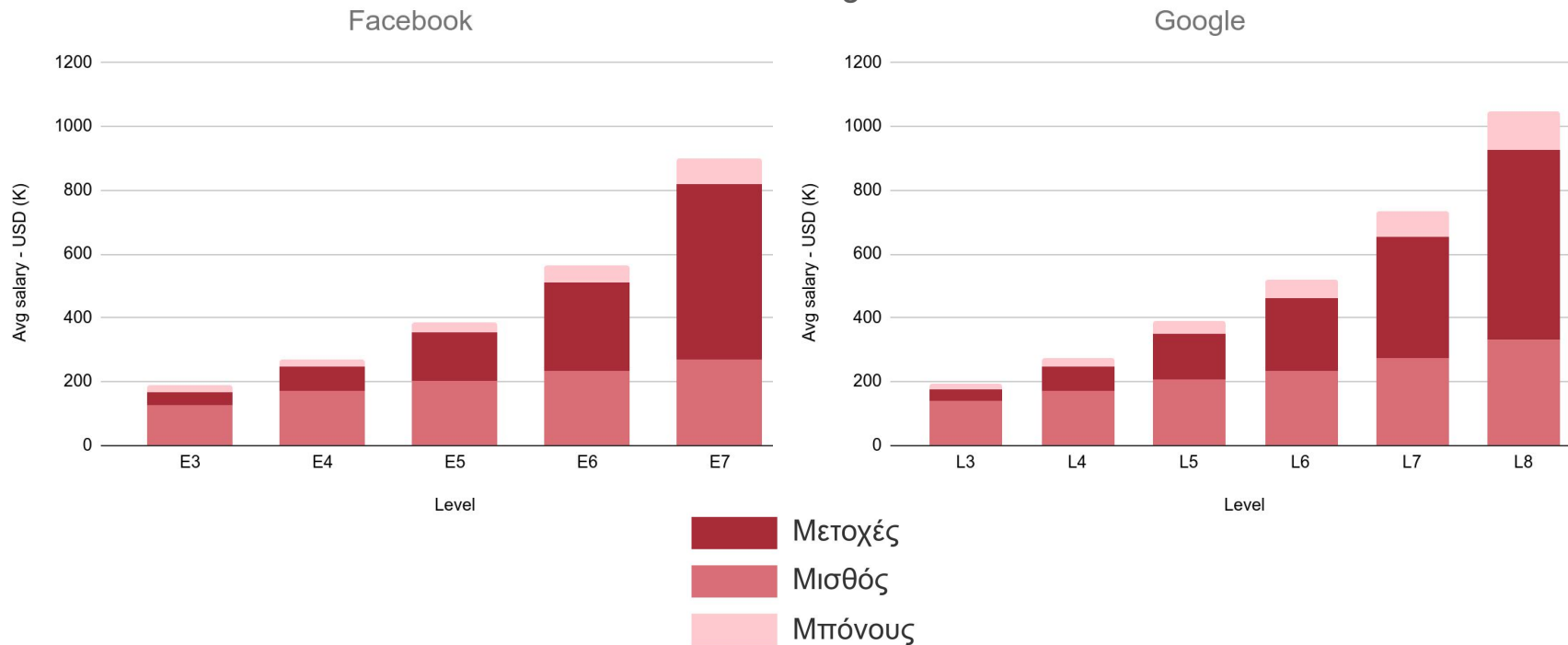
Basecamp: “an annual salary of **\$207,978**” (στημ Engineering Manager)”

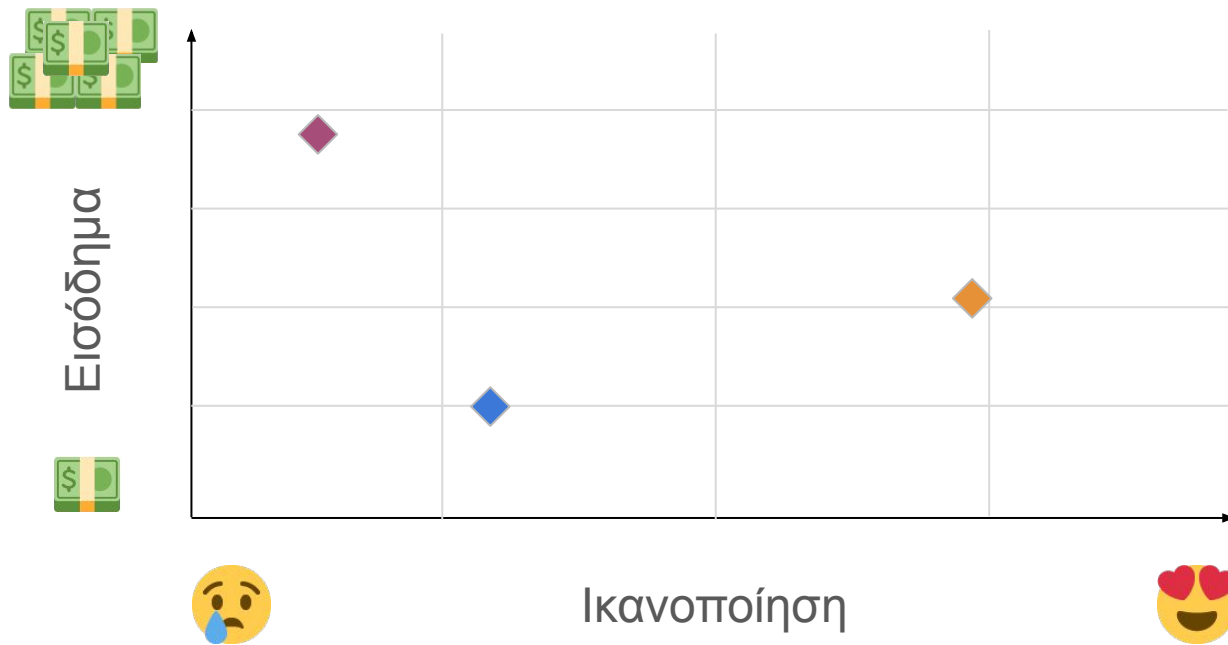
Oxide: “we all got a raise to **\$180,250** in December” (στημ 2020)

# Top of the top tier \* (Big Tech)

\* San Francisco top 1%

## Software Engineer





# Remote work

- Discipline
- Sharp communication skills
- Work from office experience

Be aware of:

- Lack of social contacts
- Hidden costs (office, +1 room, heat-A/C)
- Work hours



dead ends

source



saturation

source



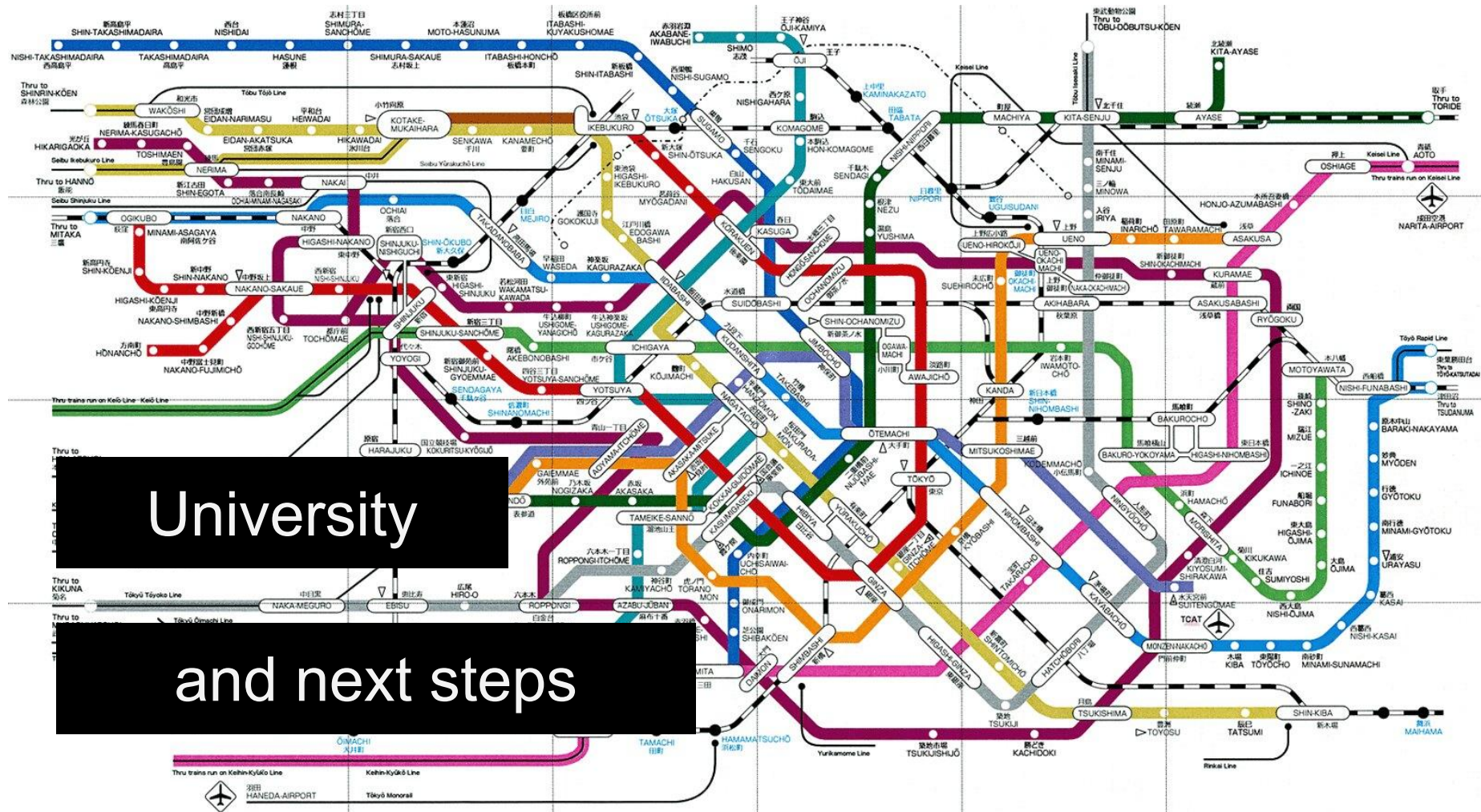
financial crises

image courtesy of Thomas Jorion



University

and next steps





# Red brick & Ivy league



mit tuition fees



[All](#) [Images](#) [News](#) [Maps](#) [Videos](#) [More](#)

Tools

About 38,900,000 results (0.74 seconds)

Massachusetts Institute of Technology / Undergraduate tuition and fees

53,450 USD

2019 – 20

People also search for























Harvard  
University  
54,002 USD



Stanford  
University  
56,169 USD



Yale  
University  
57,700 USD

1		Massachusetts Institute of Technology (MIT)	
2		Stanford University	
3		University of California, Berkeley	
4		Carnegie Mellon University	
5		ETH Zurich	
6		Tsinghua University	
7		Harvard University	
8		Nanyang Technological University	
9		University of Oxford	
10		University of California, Los Angeles	

# MSc + tuition



# MSc + cost of life



# Programming

Get exposed to programming, the language doesn't matter that much

Indicative: python, java, go, bash, javascript

<https://exercism.io/>, "Code practice and mentorship for everyone"

<https://bitfieldconsulting.com/golang/how>, "How to really learn Go"

# Basic technical skills

Network (TCP, HTTP)

SQL

Linux cli

Computer architecture

[The Missing Semester of Your CS Education](#), MIT (Anish Athalye, Jon Gjengset, Jose Javier Gonzalez Ortiz)

[Programming Zines](#), Julia Evans

[Introduction to Linux \(LFS101x\)](#), The Linux Foundation

[Ops School Curriculum — Ops School Curriculum 0.1 documentation](#), Ops School Curriculum

# Open source projects

Open your horizons, get exposed to collaborations

Practice (reading code, collaboration)

Positive for the CV

Find something interesting enough so that you invest the time



# Open source projects

How do I participate?

1. Prepare your dev env
2. Contact developers / community (slack/ mailing list)
3. Find 1-2 simple bugs
4. Try (commits)

[How to ask good questions](#), Julia Evans

[How do I ask a good question?](#), Stackoverflow

[Contributing to Complex Projects](#), Mitchell Hashimoto

[How to Contribute to Open Source](#), André Arko

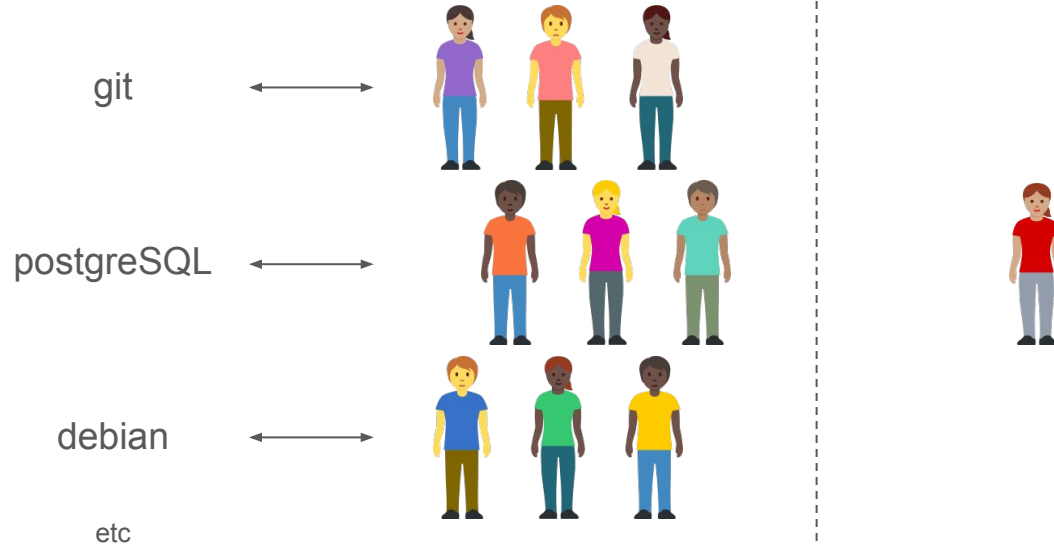
[Python Summer of Code - How do I get started?](#), Python Software Foundation

# Google Summer of Code

Organisations

Mentors

Students



# Similar programs

- Season of Docs, <https://developers.google.com/season-of-docs>
- Season of KDE, <https://season.kde.org/>
- Outreachy, <https://www.outreachy.org/>
- Tweag Open Source Fellowship, <https://www.tweag.io/blog/2020-02-14-os-fellowship/>
- Summer of Nix, <https://summer.nixos.org/>
- ~~Rails Girls Summer of Code, <https://railsgirlssummerofcode.org/>~~

# Foreign languages, (asynch) communication




A woman with dark hair tied in a ponytail with a yellow hair tie is climbing a grey rock face. She is wearing a blue long-sleeved shirt with green cuffs and a red vest. She is smiling and looking towards the camera. Her right hand is placed on a rock ledge, and her left hand is holding a blue and silver climbing device attached to a green rope. The rock face has some orange-brown patches. In the background, there are more rocks and some green foliage.

My 1st job

# Requirements

“Required Technical and Professional Expertise:

 Minimum 12+ years' experience in Kubernetes administration and management.”



# Requirements

You don't need to meet 100% of the requirements

“2+ years of experience” ignore it - especially if you have commits, internship, GSOC

# Tax + Social security

Take home money?

Differences employee / contractor

VAT

Stock taxation (if stocks is an option)

# Your application will be ignored and rejected 🤖

Send



Answers



Final  
offer



# 1st job goals

It's OK not to find the top salary on the 1st go. **It will happen!**

For starters, search for a healthy environment where you can learn.

# Next steps

Education (books, courses, videos, and of course time)

Work with a senior member of the team

# Next steps

Search for the next job if you are not satisfied

Practice interviewing

The bigger raises usually come when you change jobs



# Do your research

## Job boards

- <https://www.adzuna.co.uk/> (.com, .fr, .it, κτλ)
- <https://gr.indeed.com> (.co.uk, .fr, .it, κτλ)
- <https://www.glassdoor.com>
- <https://stackoverflow.com/jobs/>

## Remote work job boards

- <https://github.com/fossjobs/fossjobs/wiki/resources#job-aggregators>
- <https://weworkremotely.com/>
- <https://remoteintech.company/>

Directly at the website of companies that interest you



The greek university is one good step of the many that you will take

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Questions?

