Who are we, why do we exist?

Adzuna is a job search engine that lists every job, everywhere

- Founded in 2011 by the team behind Zoopla, Gumtree, and Yelp
- 20 million monthly visitors across 16 international markets
- Market leader in labour market data, AI, smart matching tech for jobs
- Provider of UK Gov’s award-winning flagship Find a Job service
- Offering flexible, cutting edge job platform tech to government clients
Online job vacancies coverage

- Over 700m job ads total
- Data from Apr-2016 in most countries (from Dec-2014 in UK)

Plus...

- CVs
- Jobseeker behaviour
Online job ads are a goldmine

- Labour demand
- Salaries and perks
- Skills insight
- Industry sector growth
- Regional development
- Company indicators
- Changing working patterns

All segmentable over time by location, industry, title, etc...
But also very challenging...

PROMOTIONS/ENTERTAINER, COSTUMES AND SUPERHERO FIGURES OXFORD ST, LONDON

We require promotions entertainers, dancers, minions dressed in our genuine themed costumes or superhero uniforms to take part in our street parties to celebrate the launch of our latest new awesome super product. More information will follow!

Consultant Petroleum Chemist

UP TO £1 PER ANNUM - FASTSTREAM RECRUITMENT - ENGLAND, CITY OF LONDON, CARDIFF (CAERDYDD)

Faststream are working with an independent scientific consultancy with offices worldwide who provide a range of services across the maritime and oil & gas sectors. Our client is looking for an experienced Petroleum Chemist to join their consultancy division on... More details

Rethink. Reskill. Reboot. Why this Software Engineer role is like ballet.

MONGOOSE GRAY - LONDON

... are looking for a Software Engineer with a preference for Front End. Code is a classical ballet term that refers to the finale of a group of dancers. You have a classical knowledge of coding... with excellent communication skills and a collaborative attitude. Attitude in classical ballet is a position where the dancer is standing on one leg with the other one lifted. Your goto... More details
Hidden value in the job descriptions...

- **Advanced text parsing**
  - Seniority level, company details, educational requirements, perks, etc

- **Linguistic analysis**
  - Sentiment, gender bias, company culture

- **Vector embeddings**
  - Clustering and similarity for titles and skills
  - Obviates need for an ontology hierarchy
  - Enable title and skills discovery and recommendation

{\{Title, location, salary, category, etc...\}  
\{Descriptions\}  

---

![t-SNE plot of Teaching and Developer Job Embeddings](image)
...to add huge value to the data
Recap on labour market data

- Adzuna has excellent coverage of all online job vacancies in each of the 16 territories
- Historical data available back many years
- Raw advert data can be ‘messy’, but Adzuna’s tech and proprietary ontologies standardise and clean the information
- The data is there to be explored!
Public Sector Applications

Office for National Statistics

Figure 5: On 23 April 2021, the proportion of UK online job adverts was at 103% of its February 2020 average level, an increase of 4 percentage points from the previous week.

Index of job adverts on Adzuna by category, 100 = average job adverts in February 2020. 4 January 2019 to 23 April 2021, non-seasonally adjusted.

AI Policy Observatory, OECD

Relative International AI skill demand by AI subcategory

Labour Supply
- Cross-Country AI Skills Penetration
- Cross-Country AI skills penetration by industry
- Cross-country AI skills penetration by gender
- AI skills penetration country ranking over time
- Between-country AI skills migration
- AI hiring over time
- Top AI skills worldwide
- Fastest growing AI skills
- AI-related online courses

Labour Demand
- Hierarchy of skill categories
- Relative domestic AI skill demand
- Relative international skill demand
- AI skill demand by IT category
- AI skill demand by AI subcategory
- Relative domestic AI skill demand by AI subcategory

https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronavirusandthefeconomyandsociety/fasterindicators/29april2021#online-job-adverts