

# Digital Technologies

and Machine Learning in Recruitment:

CV Matching, TrueRecord

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## Digital Tsunami **BANKING INSURANCE HIGH TECH TELCO** LIFE SCIENCE / HEALTHCARE **MEDIA** SERVICES TRANSPORTATION **RETAIL / WHOLESALE CONSUMER GOODS / AFS HIGHER EDUCATION DEFENSE AND SECURITY PUBLIC SECTOR • UTILITIES** MILLS & MINING • OIL & GAS **SPORT AND ENTERTAINMENT** AUTO • IM&C **CHEMICALS • EC&O** HIGH WINDS 😂 HURRICANE **SEVERE STORM** Internet of Things • Industry 4.0 • (Artificial Intelligence)

## Disruptive Trends in HR

**GLOBALIZATION**, analyzing micro markets for specific tasks

**NEW** professions – LinkedIn top 25 competencies social network marketer, digital finance, distributed and cloud computing (no. 1 in 2015), Chief Digital Officer

**ROBOTS** replacing tasks: driving, accounting/posting, contract documents by lawyers, **PROGRAMMERS** DeepCode AI and renting free coding capacity

No skills to get the job for profession dropouts – **LUDDITES** on march to destroy robots?

ML to automate tedious repetitive tasks and THRIVE in new opportunities

## **Technology Trends**



Artificial Intelligence, Machine Learning



Blockchain



Conversational Apps



Knowledge Workspace



IoT/Sensors



Microservices, APIs



Multi-Modal User Experience (AR/VR & Virtual Assistants)



Industry 4.0 / Industrial Robotics



Cybersecurity



Neuromorphic Hardware



Autonomous Vehicles/Drones/Machines



Quantum & Biocomputing

## Computer vision is surpassing human abilities

#### **Automated Labeling**



A dog with ball in its mouth



Group of six people

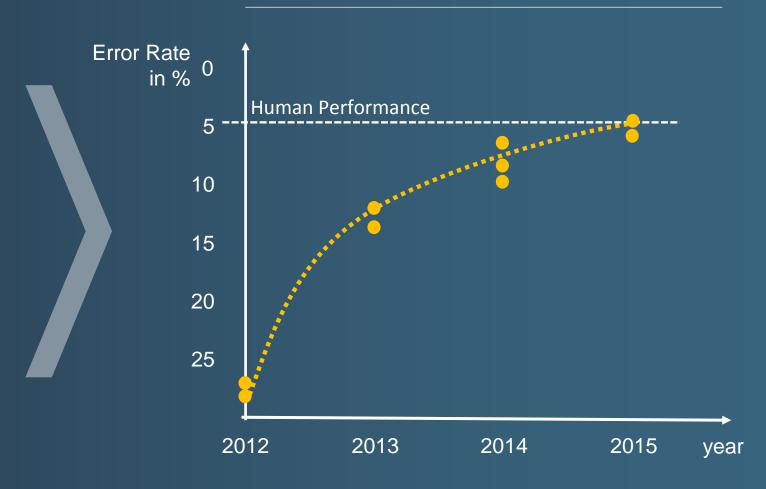


A skier is jumping over snow covered hill



Late 19th century architecture

#### ImageNet performance



## Would Robots Hire Jack Ma?



in an interview with Charlie Rose in Davos, "... when I graduated, I was rejected for most jobs I applied for:

Ma was the only one out of 5 applicants to the police force to be rejected and the only one of 24 applicants to be a KFC manager to be rejected.

"I applied for Harvard ten times, got rejected ten times and I told myself that 'Someday I should go teach there.'"

http://www.investopedia.com/university/jack-ma-biography/#ixzz4b7s4beZl

## Machines can now do things that were not possible before

#### What is Machine Learning?

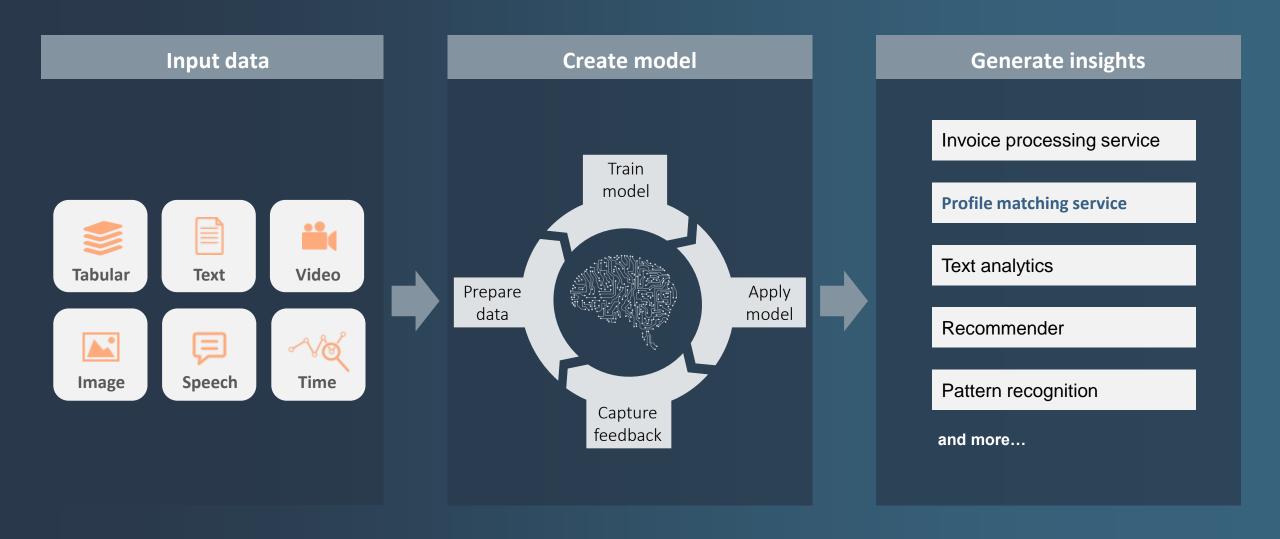
- Computers learn from data without being explicitly programmed
- Machines can see, read, listen, understand and interact



#### Why now?

- Massive improvements in hardware GPU, multicore
- Deep Learning Al function that imitates human brain in processing data and creating patterns for decision making
- Big data
   business networks, cloud applications, IoT and real-time data processing

## How Enterprise Data is transformed into Business Value by Machine Learning



## CV Matching Recruit Best. Recruit Fast.



Increasingly competitive market for recruiting and retaining top talent. With hiring managers are spending hours and days screening candidates manually and often fail to identify the best candidates. Applicants struggle to find their dream job with job board providing poor job recommendations and long times spent in the application process.

#### What is Smart Recruiting?

Smart Recruiting applies sophisticated ML algorithms which parse and mine the resume and job descriptions to filter the best talent. Hiring managers can find the best candidates and applicants can find the best suited jobs in seconds.

#### How does it work?

Smart Recruiting makes use of ML techniques to provide intelligent recommendations for both recruiters and candidates. Recruiters are recommended the best candidates for their jobs posts. Candidates spend less time searching for job posts and are recommended the right jobs to apply for. ML model learns from large amounts of historical model in existing system and continuously learns and improves accuracy over time.

#### Unique value proposition

- Parse key candidate information such as qualifications, etc. from the resume and present in a more readable format.
- Uisualize the matching candidates based on key selection criteria
- ☐ Match the best talents based on the relevance score of their resume to the original job description through unsupervised similarity matching

## CV Matching

Narrow down the shortlist to find the best candidates

Parse resumes

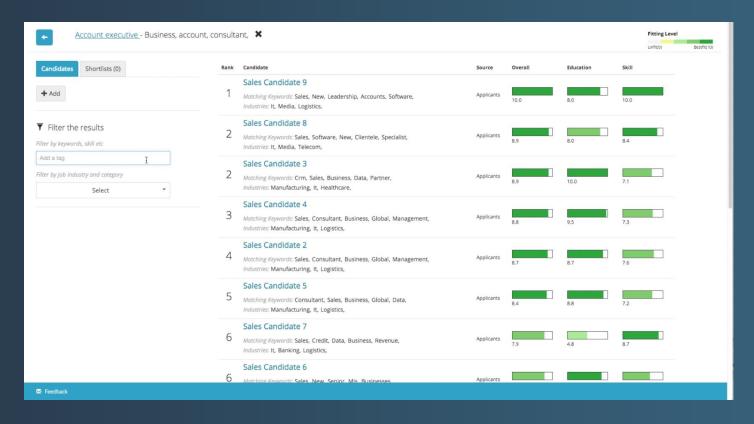
Visualize profiles

Match best talent

Parse resumes into structured information

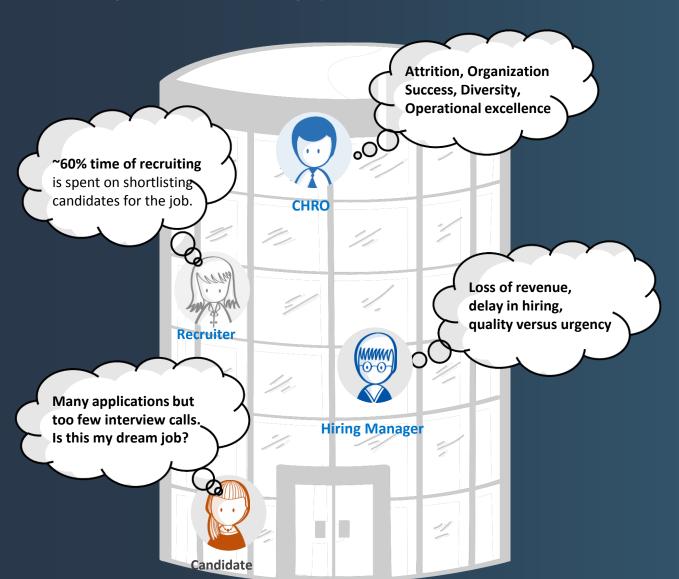
Visualize candidate profiles by skills, education, experience, etc.

Compare and generate best fit score of profile to job and vice versa



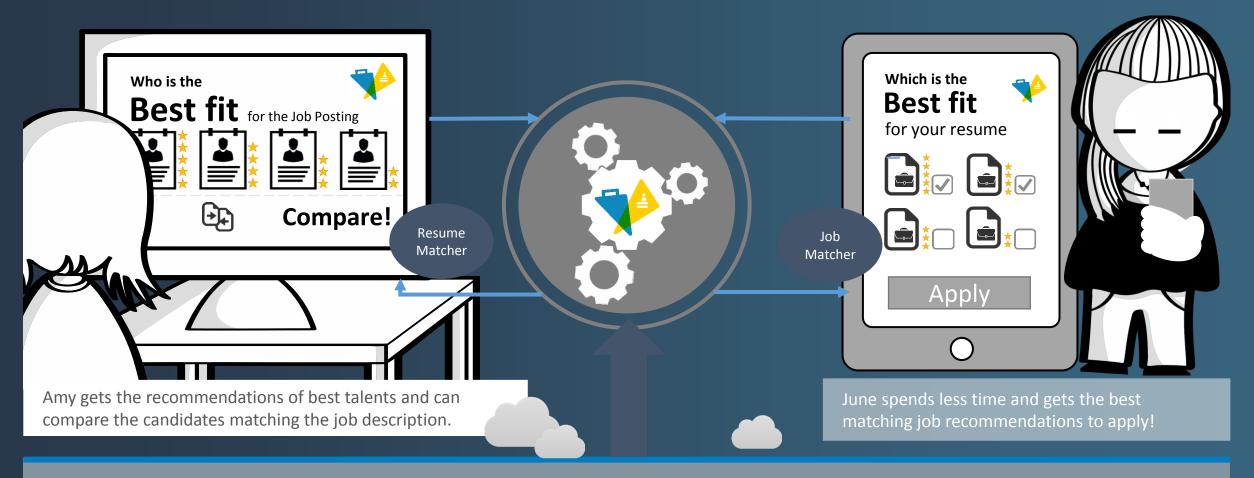
## CV Matching

Challenges in the recruiting space



- Organizations constantly face challenges in finding the right talent.
- Increased spending in recruitment process due to quality versus urgency to hire, longer time to hire, skills mismatch, etc.
- ➤ Hiring managers are under a high time and cost pressure with candidate drop-off, revenue loss, increased cost to hire, quality of hires, etc.
- Candidate's job hunt finds major issues in finding the dream job with hassles of poor job recommendations from job portals and longer time spent in the application process

## Both Sides Benefit







## Blockchain Distributed Ledgers

#### Description

**Blockchain** is a technology using cryptography, peer-to-peer networks and consensus algorithms to form a "digital ledger" of transactions.

Every participant in a blockchain can see those transactions which are verified and recorded in a "connected chain of information".

Blockchain allows participants to conduct business transactions directly with each other eliminating the need for third parties through build-in information transparency.

## Facts & Figures

90%

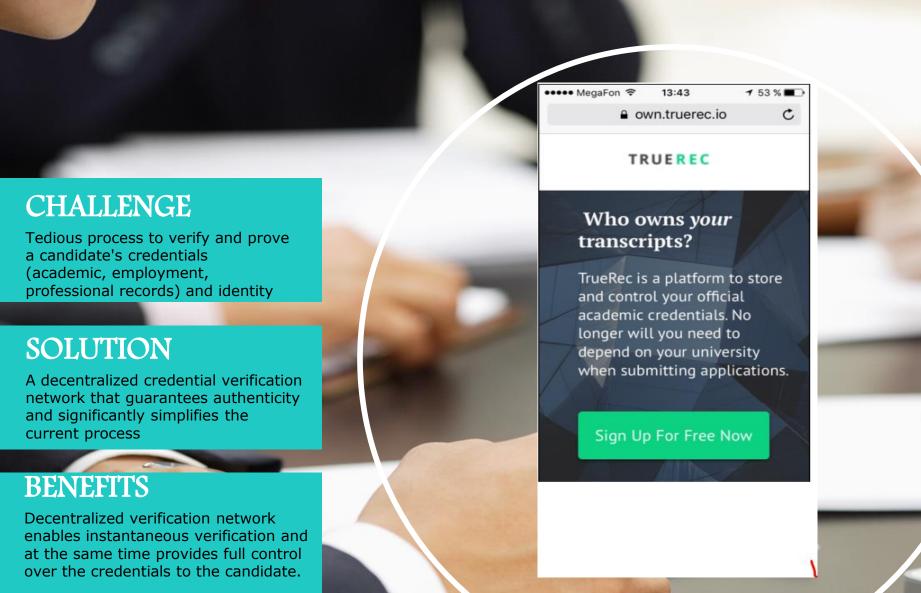
of banks are currently exploring the use of blockchain/distributed ledger technology in payments <sup>7)</sup>

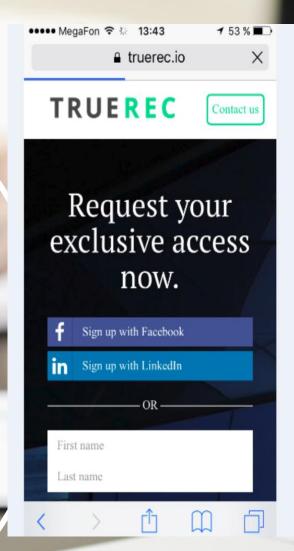
24+

**countries** currently investing in distributed ledger technology <sup>8)</sup>

\$1.4bn

in **investments** in a blockchain technology over the past 3 years 8)





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### Decentralized Verification Network – Foundation

#### challenge

The current process of background verification is.

- Time-consuming (1 to 3 weeks)
- Inefficient (many middle-men and 3<sup>rd</sup> party agencies)
- Expensive (\$150 \$250 per candidate)

#### solution

- Provide a decentralized network that provides instantaneous verification of identity, education, and employment.
- Candidates can store credentials in a safe, reliable and trustworthy way.
- Trusted professional profile leveraging block chain.
- Employers can verify and issue certificates.
- Universities can issue certificates.

#### benefits

- TrueRec provides the most efficient and trustworthy way for managing, issuing and verifying credentials(Identity, Academic, Employment).
- Instantiations verification of candidates credentials.
   Thus helping companies to hire employees faster.
- TrueRec empowers applicants with full control over his data.

#### architecture

Blockchain, state of te art development platform, HTML 5 and Mobile

## ML Is Not Mysterious – HR And Recruiters Should Care

Understand ML basic concepts, apply ML to real business problems <a href="https://www.sap.com/solution/machine-learning.html#section\_0">https://www.sap.com/solution/machine-learning.html#section\_0</a>

- Does CV MATCHER and JOB MATCHER on ML, or TRUE CERTIFICATES with BLOCKCHAIN matter for you?
- Talk to your Chief Digital Officer or to ML expert of choice

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# THANK YOU!