

# Mosab Ibrahim

England, United Kingdom

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## Personal Profile

As a resourceful and passionate Software and Systems Engineer with two decades of experience, I have honed my skills in designing, developing, operating, and maintaining software systems at various scales.

My expertise spans multiple industries and domains, and I am particularly passionate about Developing Large-scale Systems, Linux, Databases, Systems Programming, Distributed Systems, and Automation at Scale, as well as Free Software and Open-source Software.

## Work Experience

### Meta / Facebook

London, United Kingdom

#### Production Engineer

Mar 2022 - Aug 2024

- Member of the Backup and Restore team, building and ensuring the ability to recover the largest MySQL installation on the planet, and the internal key/value store at Meta (aka ZippyDB), serving as the defence line against data loss and corruption across all our family of services and apps (Facebook, Messenger, Instagram, and WhatsApp).
- My main focus is in the recovery area, leading and implementing projects that unblock our ability to restore huge amounts of data in disaster scenarios, and projects that reduce our RTO (Restore Time Objective) for the datastores we support.
- Production Engineering combines software, systems, and infra engineering. Production Engineers are known for their ability to work on a wide variety of projects across multiple teams supporting the 3.7 billions users of our platforms.
- Technical Skills:** Python, Rust, Linux, MySQL, Distributed Systems, Database Infrastructure, ZippyDB, Mercurial

### Twitter

London, United Kingdom

#### Senior Site Reliability Engineer

May 2020 - Mar 2022

- Improved the availability, scalability, performance and reliability of Twitter's production services.
- Worked as part of the SRE team providing Twitter teams with Databases infrastructure (MySQL, PostgreSQL, Vertica, Druid).
- Designed and built a service that automates and massively reduces toil, providing a 98% drop in the time to provision resources, which works out to >100k saving in person hours (>139 person months, >11.5 person years) in the next few years.
- Technical Skills:** Python, Flask, SQLAlchemy, Linux, MySQL, PostgreSQL, Vertica, Druid, Git

### GoCardless

London, United Kingdom

#### Site Reliability Engineer

Mar 2019 - Mar 2020

- Protect, provide for, and progress the software and systems that make up the GoCardless product, supporting product teams in the deployment of high quality services.
- Technical Skills:** Golang, PostgreSQL, GCP, Kubernetes, Terraform, Helm, Elasticsearch, Kibana, Linux, Docker, Git, Prometheus, Grafana, Thanos

### WeQ Global Tech GmbH

Berlin - Germany

#### Software Engineer

Nov 2017 - Mar 2019

- Developed, deployed & maintained customer facing microservices handling over a billion requests/day.
- Created and maintained infrastructure as code for new and legacy systems/microservices.
- Technical Skills:** PHP, Java, Spring Boot, Kafka, AWS, Docker, Docker Swarm, Terraform, Jenkins, MySQL, MongoDB, Prometheus, Grafana

### Levelset (formerly zlabs)

Cairo - Egypt

#### Sr. Software & Platform Engineer - Tech Lead

Mar 2013 - Oct 2017

- Lead the team in designing & developing an internal platform for data verification and research process.
- Lead the migration of the levelset.com platform to a microservices based architecture, and mentored the team throughout the process.
- Designed & built the API that enabled Levelset to onboard enterprise customers by bulk importing their projects into the platform.
- Worked with enterprise customers to integrate their systems with our API and provided them with the support they needed to successfully onboard to the platform.
- Designed and built the PDF generation engine that generated legal/financial letters for all our customers to secure their lien rights. This is the core feature of the platform.
- Designed & and lead building various growth products/features that acquired new customer segments.
- Technical Skills:** PHP, Symfony, Linux, AWS, RabbitMQ, Soap API, Rest API, Jenkins, MySQL, Git, Nagios, New Relic

#### Senior Software Engineer, DevOps

Mar 2013 - Oct 2017

- Overhauled, stabilised and scaled the MySQL backing infrastructure.
- Designed the new cloud infrastructure (AWS), built automation tools and established system monitoring, performance measurements, and fully automated deployments
- Migrated the platform from single point of failure virtual private servers (slicehost) to the cloud (AWS).
- Worked closely with engineers and business folks to identify and solve operational and customer issues with our services, tools and apps.
- Optimised time to release by orders of magnitudes (from 2 days to an average of 3-5 minutes), and improved uptime (99.9% from several outages a week).
- Maintained and operated Git source repositories, defining branching strategies and tutoring the engineering teams about it.
- Technical Skills:** PHP, Symfony, Linux, AWS, RabbitMQ, Soap API, Rest API, Jenkins, MySQL, Git, Nagios, New Relic

## Handmade Studios

Cairo - Egypt

### Senior Software Engineer

Jun 2012 - Feb 2013

- Designed, developed & maintained an editorial website for entrepreneurs and startups.
- **Technical Skills:** PHP, Symfony, Linux, AWS, Git

## Inmobly

Cairo - Egypt

### Senior Software Engineer

Nov 2011 - May 2012

- Designed, developed & deployed API backends for two mobile apps that recorded and streamed videos.
- **Technical Skills:** Python, Flask, SQLAlchemy, Rest, AWS, SVN

## Bluw i LTD

Cairo - Egypt

### Technical Consultant

Jun 2011 - Sep 2011

- Implemented a social network for entrepreneurs to raise funds from angel investors.
- **Technical Skills:** PHP, Drupal, AWS, Git

## Wuzzuf.net

Cairo - Egypt

### Lead Software Engineer

Apr 2010 - Apr 2011

- Designed the architecture for Wuzzuf.net
- Lead the team in implementing wuzzuf.net (Egypt's leading hiring platform).
- Collaborated closely with the company's CTO.
- Designed, created, monitored and maintained the infrastructure of wuzzuf.net.
- **Technical Skills:** PHP, CakePHP, Doctrine ORM, AWS, MySQL Mercurial

## Arabia Inform

Cairo - Egypt

### Senior Software Engineer

Nov 2009 - Apr 2010

- Designed and built an archiving solution for media with an advanced search index and media encoding features.
- Implemented and deployed an ads management solution for the company's websites network.
- Collaborated with other teams on infra upgrade projects and migrations.
- **Technical Skills:** PHP, Drupal, OpenX, AWS, Git

## Citex Software

Cairo - Egypt

### Software Engineer

Oct 2008 - Nov 2009

- Implemented a social network for entrepreneurs to raise funds from angel investors.
- **Technical Skills:** PHP, Drupal, AWS, Git, Nagios

## Media International

Cairo - Egypt

### PHP Developer

Jan 2007 - Sep 2009

- Designed, developed, deployed and maintained various PHP projects for customer.
- Designed and executed data migration projects for some of our clients from legacy systems to solutions developed by our team.
- Surveyed and reviewed tools for internal use by our team.
- Installed and configured load balancing linux web servers and implemented MySQL replication and file synchronization solutions.
- Monitored the servers, resolved production issues, and maintained service uptime.
- **Technical Skills:** PHP, Drupal, Joomla, Moodle, Linux, MySQL, Nagios

## 20at.com

Cairo - Egypt

### PHP Developer

Jun 2004 - Dec 2006

- Developed a new content management solution (CMS) from scratch to meet the editorial and business requirements
- Designed and executed data migration plan from the legacy version of the website to the newly developed system.
- Maintained the online website codebase and applied bug and security fixes.
- Developed new features and sub-portals in reaction to business needs and special current events (e.g. world cup 2006).
- **Technical Skills:** PHP, Linux, MySQL, Dedicated Linux Hosting, S/FTP

## Open Source Projects

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### Toggl Target

- A CLI tool that helps planning weekly working hours on top of Toggl time tracking.
- Featured in Toggl's official documentation as a reference API client implementation in python.
- **Technical Skills:** Python, Requests.

### Grid Status Now

- A service that monitored Egypt's power grid load status, and visualised the data in a useful way and exposed the data via a restful API.
- **Technical Skills:** PHP, Symfony.

### Power Close

- A browser addon to close tabs based on a domain name or a keyword that is part of the URL.
- **Technical Skills:** Javascript, Firefox, Chrome.

### Other Projects

- Created and contributed to other projects that you can find on my website or github profile.

## Education

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### University of Cairo

*Cairo, Egypt*

Bachelors of Computer Engineering [Dropped Out]

*Fall 2003 - Summer 2007*

- Attended a few years divided between: Architecture, then Civil Engineering, then Computer Engineering, and a semester or two in Commerce.
- Dropped out due to personal/family circumstances and responsibilities.

## Languages

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**English** Professional proficiency

**Arabic** Native proficiency