

# Bernard Kolobara | CV

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## Education

### University of Zagreb

Master of Computer Science

### Faculty of Electrical Engineering and Computing

2012–2016

### University of Zagreb

Bachelor of Computer Science

### Faculty of Electrical Engineering and Computing

2007–2012

## Masters Thesis

**Title:** Finding similar email conversations using locality sensitive hashing

**Supervisor:** Prof. Dr. Sc. Siniša Srblić

**Description:** This thesis explored the idea of finding similar emails in a large collection by applying fingerprinting methods based on locality sensitive hashing algorithms.

## Experience

### Bernard Kolobara Software

Owner

Munich

Mar. 2017 – Present

- Web development consultancy that helps customers ship amazing digital products.
- Specialized in complex frontend application designs (REACT.JS, REDUX, IMMUTABLE.JS, ...).

### CERN

VIA

Geneva

Feb. 2015 – Feb. 2017

Worked with the data acquisition team of the ATLAS experiment to create new web applications and improve the user experience of existing ones.

- Designed and developed the Shifter Assistant Web Interface: A single-page application that is responsive, works on all screen sizes and includes advanced features like streaming updates and desktop/push notifications based on HTML5 service workers. It is used daily by shifters and experts as a critical application to monitor the status of the ATLAS data acquisition.  
(Python [FLASK, SQLALCHEMY], Javascript [REACT.JS, IMMUTABLE.JS, FLUX], Oracle SQL)
- Redesigned and implemented the frontend of the Shifter Assistant Replay application, allowing a faster non-repetitive work-flow. Simplified code complexity of the backend that resulted in a removal of over 1 thousand LOC. Implemented a custom Django log-in module based on SSO and LDAP.  
(Python [DJANGO], Javascript [REACT.JS, REDUX])
- Tutored and implemented a simple DAQ control system for teaching purposes at the International School of Trigger & Data Acquisition 2016. (Python)

### Cliqz

Software Engineer

Munich

Mar. 2014 – Jan. 2015

- Developed the Cliqz Firefox extension[1]: An extension that provides search results directly in the url bar, with a custom presentation depending on result content.  
(Javascript, HTML and CSS)
- Designed and developed a version management and update system for Firefox extensions distributed outside of Mozilla, based on Git tags and Amazon S3. This allowed us to push new versions multiple times a day to millions of users and separate testing and production channels.  
(Python, Git, Amazon Web Services)
- Worked with the data science team on analyzing terabytes of user behavior data, extracting meaningful information out of it and recognizing patterns. (Hadoop, map-reduce)

[1] <https://addons.mozilla.org/en-US/firefox/addon/cliqz/>

## CERN

*Openlab Summer Student*

**Geneva**

*Jul. 2013 – Sep. 2013*

Worked on the Indico project (<http://indico-software.org>) developing e-ticket and check-in functionalities for the system.

- Extended Indico to generate e-tickets with QR codes. (Python)
- Built a cross-platform mobile application<sup>[1]</sup> for scanning and processing generated tickets using web technologies on PhoneGap. (HTML, CSS, Javascript [ANGULARJS])
- The application was put in production and is now a part of Indico. It is available from the two major smart-phone application stores and has received very positive feedback from conference organizers.

[1] <https://github.com/indico/indico-checkin>

## Partner bank

*Software engineer intern*

**Zagreb**

*Jul. 2012 – Dec. 2012*

- Developed rich/interactive web applications to simplify work-flow and collaboration between different teams. (Python [FLASK], Javascript [BACKBONE.JS])
- Used test-driven development to assure code correctness in a fast-moving environment.

## MF creative studio

*Software engineer intern*

**Zagreb**

*Oct. 2011 – Dec. 2011*

- Developed web applications for conference organizers. (PHP, MySQL, Javascript, HTML)
- Worked on a small team and learned to "wear many hats" when necessary.

## Skills

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### Programming languages:

ADVANCED: Python, Javascript

INTERMEDIATE: Java, Lua

BASIC: C/C++, Clojure[Script]

### Miscellaneous:

ADVANCED: HTML, CSS

INTERMEDIATE: SQL, Git/SVN, Docker, Test-driven development

BASIC: Kubernetes, Photoshop

## Languages

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**Croatian:** Mother tongue

**English:** Professional working proficiency

*CEFR level: C1*

**German:** Professional working proficiency

*CEFR level: C1*

## Interests

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Outside of work I like to spend my time running, painting and designing video games.