# Bernard Kolobara | CV

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## Education

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| **University of Zagreb** | **Faculty of Electrical Engineering and Computing** |
| *Master of Computer Science* | *2012–2016* |
| **University of Zagreb** | **Faculty of Electrical Engineering and Computing** |
| *Bachelor of Computer Science* | *2007–2012* |

## Masters Thesis

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

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

**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

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| **Bernard Kolobara Software** | **Munich** |
| *Owner* | *Mar. 2017 – Present* |

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

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| **CERN** | **Geneva** |
| *VIA* | *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)

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| **Cliqz** | **Munich** |
| *Software Engineer* | *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**                                                                                          **Geneva**
*Openlab Summer Student*                                                              *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[1] 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**                                                                                   **Zagreb**
*Software engineer intern*                                                              *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**                                                                             **Zagreb**
*Software engineer intern*                                                              *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

**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

**Croatian**: Mother tongue

**English**: Professional working proficiency                                         *CEFR level: C1*

**German**: Professional working proficiency                                          *CEFR level: C1*

## Interests

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