

# Andrea Vicari

COMPUTER SCIENTIST · MASTER STUDENT IN SOFTWARE & DATA ENGINEERING

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*I am a master student in Software & Data Engineering at Università della Svizzera italiana (USI) currently attending my second year and working on my Master Thesis. I am a passionate and enthusiast programmer inclined to build robust, good-quality code and I am accustomed to work in team in order to cooperate toward a common goal.*

## Education

### USI – Università della Svizzera Italiana

Lugano, Switzerland

MASTER IN SOFTWARE & DATA ENGINEERING

Sep. 2017 - current

- Currently working on Master Thesis: “**Jeeves: An Interaction-Centric approach to Data Visualization**” using Java (Spring Boot) and Javascript (Vue.js)

### USI – Università della Svizzera Italiana

Lugano, Switzerland

BACHELOR OF SCIENCE IN INFORMATICS

Sep. 2014 - Jun. 2017

- Graduated with 8.54/10 (Magna Cum Laude)
- Bachelor Project: **SMART-IVC: Enhanced Visualization of Cities Through Smart Visual Queries** using using Java (Spring Boot) and Javascript + Cesium.js.

### Liceo Classico Napoleone Colajanni

Enna, Italy

HIGH SCHOOL DIPLOMA AT LICEO CLASSICO

Sep. 2009 - Jun. 2014

- Graduated with 100/100

## Work Experiences and Internships

### COOPAR<sup>1</sup>

Lugano, Switzerland

SOFTWARE DEVELOPER (FRONT-END)

Dec. 2019 - current

- Find more in the section “External Projects” under “Data Visualization Web Platform (COOPAR)”

### Match Strategies<sup>2</sup>

Lugano, Switzerland

SOFTWARE DEVELOPER (FULL-STACK)

May. 2018 - current

- Find more in the section “External Projects under “Alpfoodway Engagement Platform(Match Strategies)” and “Scale(Up)Alps Promotional Video(Match Strategies)”
- References: Calogero Amato, Giorgia Pati

### Università della Svizzera italiana & Code Lounge<sup>3</sup>

Lugano, Switzerland

SOFTWARE DEVELOPER (FULL-STACK)

May. 2018 - current

- Find more in the section “External Projects” under “BoardBile Data Visualization (Università della Svizzera italiana & Code Lounge)”
- References: Prof. Michele Lanza, Dr. Marco D'Ambros

### Dolphin Engineering SAGL<sup>4</sup>

Lugano, Switzerland

SOFTWARE DEVELOPER (FULL-STACK)

Feb. 2017 - May. 2017

- Added new features to the platform (i.e., functionalities and new widgets) provided by the company: PreDivine. Using PHP and the Yii Framework.
- References: Antonio Vincenzo Taddeo and Mauro Prevostini

### Dolphin Engineering SAGL<sup>4</sup>

Lugano, Switzerland

SOFTWARE DEVELOPER (FULL-STACK)

Sep. 2016 - Dec. 2016

- Software Atelier 5 internship during fall semester 2016
- Added new features to the platform provided by the company: PreDivine. Using PHP and the Yii Framework.
- References: Antonio Vincenzo Taddeo and Mauro Prevostini

### Private Organization

Enna, Italy

EVENT ORGANIZER AND PROMOTER

Dec. 2012 - Jan. 2014

- Responsible for marketing and promotion of events
- Creator of original content (video and photo)

<sup>1</sup>Coopar Official Website: <https://www.coopar.ch>

<sup>2</sup>Match Strategies Official Website: <https://www.matchstrategies.com>

<sup>3</sup>CodeLounge Official Website: <https://codelounge.si.usi.ch>

<sup>4</sup>Dolphin Engineering SAGL Official Website: <https://www.dolphin-engineering.ch>

## External Projects

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### Data Visualization Web Platform

Lugano, Switzerland

COOPAR

Dec. 2018 - Current

- Creation of a web platform for analyzing and visualizing data of the cities of Ticino
- The visualization includes timeseries, comparisons between cities, distribution of data among the population and possible predictions.
- Web developer using web technologies: HTML, CSS, JavaScript and the framework Vue.js

### Scale(Up)Alps Promotional Video

Lugano, Switzerland

MATCH STRATEGIES

Dec. 2018 - Current

- Work in progress, link not available yet
- Ongoing collaboration with the Scale(Up)Alps project for the creation of the promotional video in Motion Graphics style.

### Alpfoodway Engagement Platform

Lugano, Switzerland

MATCH STRATEGIES

May. 2018 - Oct. 2018

- Available at: <https://alpfoodway.eu>
- Creation of the #AlpFoodway Engagement Platform for the AlpFoodway project
- Full Stack approach using: PostgreSQL (Database), Java and Spring Boot (Server), Javascript and Vue.js (Client)
- The platform allows the user to sign the petition and support the project. Furthermore, it automatically updates its content taking information from various datasources:
  - Upcoming events from the project website
  - News about the project from the main online newspapers
  - Posts from twitter and Facebook

### BoardBile Data Visualization

Lugano, Switzerland

UNIVERSITÀ DELLA SVIZZERA ITALIANA & CODE LOUNGE

May. 2018 - Sep. 2018

- Available at: <https://dev.si.usi.ch:9090/>
- Creation of the BoardBile: an interactive visualization of data about food.
- It is possible to connect the smartphone to a public screen running Boardbile and traverse and/or query the data using the device screen, using gestures and movements captured by the mobile sensors.
- The application has been presented to the public during the event "Lugano Città del Gusto" - Show me the (food) data (<http://www.luganocittadelgusto.ch/it/event/101/show-me-the-food-data>)

## University Projects

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### Jeeves - An interaction-centric approach to data visualization

Lugano, Switzerland

MASTER THESIS – SPRING SEMESTER 2019

Sep. 2018 - Current

- Work in progress, link not available yet
- Creating a web application that provides the possibility to visualize data and query it using vocal commands using Amazon Alexa and interactions through the use of a smartphone.
- Developed under the supervision of Prof. Michele Lanza and Dr. Marco D'Ambros
- Working during the second year of my master in Software & Data Engineering as a Master Thesis at Università della Svizzera italiana (USI).

### Yoshi - Your Own Software History Inspector

Lugano, Switzerland

SOFTWARE ANALYTICS PROJECT – FALL SEMESTER 2018

Sep. 2018 - Jan. 2019

- Available at: <http://software-analytics-g2.inf.usi.ch:3000/>
- Created a web application that provides the possibility to mine a git repository and: analyze commits and issues, profile developers, predict possible bugs
- Developed under the supervision of Prof. Dr. Gabriele Bavota
- Work done during the Fall Semester 2018 as a Group Project of the Course Software Analytics at Università della Svizzera italiana (USI).

### SMART-IVC: Enhanced Visualization of Cities Through Smart Visual Queries

Lugano, Switzerland

BACHELOR PROJECT – SPRING SEMESTER 2017

Feb. 2017 - Jun. 2017

- Available at: <http://rio.inf.usi.ch:38080/>
- Github repository available at: <https://github.com/vicaran/Smart-IVC>
- Created a web application that provides a 3D-Visualization of a City in which it is possible to interact with buildings and execute queries on the city.
- Developed under the supervision of Prof. Dr. Michele Lanza, Dr. Andrea Mocci and the REVEAL team.
- Presented to the Comune di Lugano.
- Work done during the Spring Semester 2017 as a Bachelor Project at Università della Svizzera italiana (USI).

## Personal Skills

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### Programming Languages:

- **Java** (Advanced): Learnt in university courses and worked on many projects (university and personal) involving the use of frameworks like Spring Boot.
- **Python** (Advanced): Mainly applied in data wrangling and analysis projects.
- **C, PHP, MATLAB, Haskell, Scala** (Intermediate): Learnt in university and used for projects

### Web Technologies:

- **HTML5, CSS3, JavaScript, JQuery** (Advanced): Learnt in university courses and worked on many projects (university and personal).

### Markup Languages:

- **TeX, Markdown, XML, XSLT, XSD** (Advanced): Regularly used for document creation.

### Version Control and Deployment:

- **Git (using GitHub and GitLab), Gitflow (Git extension), SVN** (Advanced): Regularly used for managing working repository and shared code for both personal and university group and single projects.
- **Docker** (Advanced): Regularly used for deploying my projects for both personal and university group and single projects

### Frameworks & Libraries:

- **Vue.js** (Advanced): Used for building client-side of multiple project during the past years: Master Thesis, many university projects and many personal projects.
- **Spring Boot** (Advanced): Used for building server-side of multiple project during the past years: Bachelor Project, Master Thesis, many university projects and many personal projects.
- **Cesium.JS** (Advanced): Used for the Bachelor Project work. Used for creating an interactive and 3D visualisation of the city of Lugano.
- **Node.JS** (Intermediate): used for university projects during the bachelor years.
- **Echarts.js** (Intermediate): used for interactive data visualizations projects during the master years and for personal projects.

### Operating Systems:

- **Desktop:** MacOS (Advanced) used as main OS, Windows (Intermediate) former user, Ubuntu (Intermediate) used for many projects.
- **Mobile:** Android (Advanced) used as main OS, iOS (Intermediate) former user.

### Databases:

- **SQL-based** (Advanced): worked with MySql and PostgreSQL for many projects
- **MongoDB** (Intermediate): used for storing and analyzing big data in projects of master courses.
- **Neo4J, Hadoop (including Pig, Hive and Flume), Spark** (Intermediate): worked with those technologies as part of master courses in data design and analysis.

### Photo and Video Editing:

- **Adobe Photoshop CC, Illustrator, XD** (Self-taught)
- **Sony Vegas Pro** (Self-taught)
- **Final Cut Pro** (Self-taught)

## Personal Information

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- Mother Tongue:** Italian, native
- Known Languages:** English, level B2 (Bachelor and Master programmes though in English)
- Nationality:** Italian
- Driving License:** Yes