

# Seyma Kalay

## Curriculum Vitae

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[🌐 seymakalay.github.io/unibg](https://seymakalay.github.io/unibg)

[in linkedin.com/in/seymakalay](https://linkedin.com/in/seymakalay)

[🐙 github.com/seymakalay](https://github.com/seymakalay)

Residency: Work permit

### Education

- 2017 - 2022 **Doctor of Philosophy in Applied Economics and Management**  
*Department of Economics and Management, University of Bergamo (Italy)*
- 2013 - 2016 **Master of Science in Finance**  
*Department of Economics and Statistics, University of Siena (Italy)*
- 2011 - 2012 **Certificate in Masters of Business Administration Program**  
*College of Business, University of Auburn (USA)*
- 2006 - 2010 **Bachelor of Science in Astronomy and Space Science**  
*Department of Science, University of Istanbul (Turkey)*

### Doctoral Dissertation

- Title Access to Credit, Using Machine Learning Techniques.
- Description Implementing data manipulations, applying machine learning algorithms, and creating interactive user faces.

### Master Thesis

- Title Optimal Portfolio Weights Using Markowitz Portfolio Theory.
- Description Finding the optimal stock portfolio weights, using both covariance and shrinkage covariance matrix.

### Experiences

- 2023 **Internship** - Market Research Assistant,  
*MPS - Evolving Marketing Research, Bergamo (Italia),*  
Analyzing market research outcomes by creating databases and descriptive statistics.
- 2017 - 2022 **Researcher** - Statistics,  
*Department of Economics and Management, University of Bergamo (Italy),*  
Implementing data manipulations, applying machine learning technique, and creating interactive user faces (please see the GitHub repositories at [🐙](#)).
- 2016 **Internship** - Portfolio,  
*Ziraat Portfolio, Istanbul (Turkey),*  
Observed equity and bond market, familiar with behavioral finance, created a statistical model to maximize the portfolio's return and proved the model efficiency by tracking the data.
- 2015 **Internship** - Portfolio,  
*Invest-AZ, Istanbul (Turkey),*  
To analyze the companies by looking at their income statements and balance sheets to make sure it is beneficial to invest in those companies.

2012 **Internship** - Accounted,  
*Varkan Group, Istanbul (Turkey),*

Have been effectively responsible for recording accounting cycle and kept tracking consistent balances on both suppliers and purchasers on the company's system.

2007–2010 **Part time** - Real Estate,  
*Emlak Ada, Istanbul (Turkey),*

Was actively involved in the marketing and communications of the firm. Drafted contracts, scheduled meetings, handled negotiations, updated company website, collaborated with other real estate agencies, generated new solutions, and conducted research on customer needs and preferences.

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## Skills and Competencies

**Languages:** ◦ Native in Turkish ◦ Advance in English ◦ Intermediate in Italian ◦ Beginner in Spanish

**Computer:** Advance: ◦ R ◦ R Shiny Application ◦ Latex ◦ Microsoft Office

Intermediate: ◦ Html ◦ Tableau ◦ SQL ◦ Power BI

Beginner: ◦ DAX ◦ VBA ◦ Java ◦ Python ◦ Quantum

**Soft Skills:** ◦ Time Management ◦ Problem Solving ◦ Reporting Skills ◦ Multitasking

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## Projects

**UI Interfaces** ◦ MappApp: Conducting an empirical study using both supervised and unsupervised machine learning algorithms.

◦ Biblio: Reproducible bibliometric literature review.

◦ Tp3: Conducting unsupervised machine learning algorithms (Tp3: runs from console).

**Viz** ◦ Tableau: Conducting data visualization using Tableau Destop.

**HTML** ◦ VizRmd: Combining Tableau, Rshiny, and HTML.

**Software Packages** ◦ Pomodoro: Comparison of predictive power. This package is intended to make modeling and comparing the predictive powers easier based on the data-splits and all data set.

◦ Pepe: Is intended to make descriptive statistics easier.

◦ Oregano: Is intended to create Shiny Modules to make the visualization easier, expected release late 2023.

**GitHub** ◦ Repositories: Current Github repositories.

**Publications** ◦ CRAN Pomodoro: Predictive Power of Linear and Tree Modeling.

◦ CRAN Pepe: Data Manipulation.

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## Awards and Honors

2017–2022 UniBG PhD Fund,

2013–2016 DSU - Toscana,

2007–2010 Turkish Gas Foundation Scholarship,

2007–2010 Turkish Women Community Scholarship,

2006–2010 Yapi Kredi Bank Scholarship.

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## References

Reference letters will be provided upon request.