# Francisco Machado

*Resume*

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## Education

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| 2013–2016 | **Massachusetts Institute of Technology**, <br> *Candidate for Bachelor of Science Degree in Physics*, <br> Cambridge, MA, <br> **GPA − 5.0/5.0**. |

## Experience - Work

**2014** — **Summer Intern**, MEMSQL, San Francisco, US.
- Worked directly on the C++ codebase
- Developed and implemented features that are already available to customers

**2013–2013** — **Senior Developer**, JEKNOWLEDGE, Coimbra, Portugal.

**2012–2013** — **Junior Developer**, JEKNOWLEDGE, Coimbra, Portugal.
Active Member of the Technology Department.
- Helped on the development of a human body detection software to analyze the correct movement of the body in various exercises.
- Developed a glove prototype of a new product using Arduino technology.
- Helped in the development of the data aquisition software for a new product in a start-up.

## Experience - Research

**2014–Present** — **Undergraduate Research**, MIT KAVLI INSTITUTE FOR ASTROPHYSICS AND SPACE RESEARCH, Cambridge, Massachusetts.
Research in spectral data from galaxies from a simulation of the galaxy
- Analyzing how to make use of the simulated galaxies informations to better understand the properties of observable galaxies.
- Developing tools that allow the matching between simulated and observed galaxies.

**2012–Present** — **Undergraduate Research**, UNIVERSIDADE DE COIMBRA - PHYSICS DEPARTMENT, Coimbra, Portugal.
Research in the topic of the dynamics of proteins and their protein reporter using computer simulations and stochastic models.
- Developed the simulation code used to run the simulations in the project.
- Compiled and analyzed the data, presenting it at two conferences
- Currently working on broadening the search parameters of the simulation and implementing different protein behaviors in order to analyze different outcomes and later compare them with experimental data.

## Skills

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| Advanced | C, C++, PYTHON, Basic Algorithms, LATEX, EMACS |
| Intermediate | Data Analysis, Julia |
| Basic | JAVA, OCTAVE |