

# OTAVIO SARTORELLI DE TOLEDO PIZA

COMPUTER SCIENCE HONORS

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## ABOUT ME

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**Technical Skills** Python, Java, Jupyter Notebook, C/C++, Shell, Unix/Linux, Git, L<sup>A</sup>T<sub>E</sub>X  
**Frameworks** Express, React, MongoDB, PyTorch with Fastai  
**Languages** Portuguese (native), English (C2), German (B2), Spanish (B2)  
**Interests** Analysis and Design of Algorithms, Machine Intelligence, Classical Music, Literature, Photography

## WORK EXPERIENCE

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### BRASA – Back End Developer

(2021.08 – present)

- Created a **unified authentication system**, which supports **multiple user types and access levels**.
- Established an **internal tool request and development process**, **reducing delivery time by 300%**.
- Refactored our API into a centralized domain-driven design, improving maintainability and expandability.

## PERSONAL PROJECTS

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### Algorithm Visualizer – [github.com/OtavioPiza/algorithm-visualizer](https://github.com/OtavioPiza/algorithm-visualizer)

Pursing my mission of making computer science more accessible, I created a website **using ReactJS** that allows users to **visualize how algorithms** work by directly **interacting with them**, controlling their flow, and **manipulating the input data**.

### Project Euler 100 – [github.com/OtavioPiza/project-euler](https://github.com/OtavioPiza/project-euler)

I created this project to give people insight into the **design process of efficient algorithms**, iterating through many possible solutions: **explaining their strengths and weaknesses**. The project consists of a series of Jupyter Notebooks where **all my logic is explained** and the **performance of each solution is demonstrated with plots**. I am currently studying different possibilities to host them online.

## EDUCATION

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### Purdue University

West Lafayette, IN (2020.08 – 2024.05)

- Bachelor of Computer Science Honors.
- Grade Point Average: 3.96 / 4.00.
- Dean's List & Semester Honors: Fall 2020, Spring 2021, Fall 2021, Spring 2022.

### Relevant Coursework

- Computer Security (Purdue CS 426) – Fall 2022
- Operating Systems (Purdue CS 352) – Fall 2022
- Information Systems (Purdue CS 348) – Fall 2022
- Software Engineering I (Purdue CS 307) – Spring 2022
- Systems Programming (Purdue CS 252) – Spring 2022
- Data Structures and Algorithms (Purdue CS 251) – Fall 2021

## STUDENT ORGANIZATIONS

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### LaunchPad – Organizer

LaunchPad's goal is to pair first-year students with mentors to develop their ideas for a semester. I am currently **responsible for planning the events** for the Fall 2021 semester.

### Association of Multicultural Computer Scientists – Program Executive

As the program executive, I am responsible for **organizing the practical aspects of all of our events**. Last semester I planned a Diversity Panel with guest speakers from **Boeing, Bloomberg, John Deere, and Raytheon**.

### ACM – Member

I am currently studying deep learning methods and working on a digit recognition project.