

EDUARDO DA VEIGA BELTRAME

Graduate Student in Bioengineering at Caltech

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EDUCATION

Graduate Student in Bioengineering

[Caltech Bioengineering Program](#)

📅 September 2017 – Present 📍 Pasadena, CA

Focus on single cell biology and bioinformatics.

B.S. Biological Physics

[Brandeis University](#)

📅 2014 – 2016 (transfer) 📍 Waltham, MA

[Federal University of Santa Catarina \(UFSC\)](#)

📅 2011 – 2014 📍 Florianópolis, Brazil

Electronics Technician

[Federal Institute of Santa Catarina \(IFSC\)](#)

📅 2007 – 2010 📍 Florianópolis, Brazil

Combined highschool and technical program.

EXPERIENCE

[Sternberg Lab](#) – Graduate student

📅 January 2018 – Present 📍 Caltech

I work on leveraging single cell data for studying the nematode *C. elegans*, and integrating this data to the biological knowledge base [WormBase](#).

[Pachter Lab](#) – Graduate student

📅 2018 – 2019 📍 Caltech

Worked on new experimental and computational methods for single cell RNA sequencing experiments.

[Ginkgo Bioworks](#) – Intern

📅 February – August 2018 📍 Boston, MA

During a 6 months internship I worked on data analysis and proteomics assays using mass spectrometry.

[Kondev Group](#) – Research Assistant

📅 2015–2016 📍 Brandeis University

Investigated gene expression and bacterial transcription processes using analytic and computational models.

[Katz Lab](#) – Research Assistant

📅 2015–2016 📍 Brandeis University

Performed neuroscience research about memory formation using electrophysiology, molecular and behavioral techniques.

[Structural Biology Lab](#) – Research Assistant

📅 2013–2014 📍 UFSC, Brazil

Investigated protein nitrosylation reactions using mass spectrometry and molecular dynamics.

LANGUAGES

- Portuguese, Native
- English, fluent
- Spanish, fluent (lived in Spain for 6 months)
- Mandarin, basic (studied for 18 months)

HIGHLIGHTS

Ran the [Brandeis 3D printing club](#) and helped create the [Brandeis MakerLab](#)

Created hundreds of 3D printed [biomolecular models](#) for teaching and research on the life sciences.

Co-developed the low cost, open source and 3D printable [poseidon syringe pump system](#).

TECHNICAL SKILLS

- Python for data analysis and machine learning
- Linux systems management
- HTML and web design
- 3D printing and 3D design

PUBLICATIONS

Quantifying the tradeoff between sequencing depth and cell number in single-cell RNA-seq. bioRxiv 2019. doi.org/10.1101/762773

A curated database reveals trends in single cell transcriptomics. bioRxiv 2019. doi.org/10.1101/742304

Modular and efficient pre-processing of single-cell RNA-seq. bioRxiv 2019. doi.org/10.1101/673285

Deletion of Stk11 and Fos in mouse BLA projection neurons alters intrinsic excitability and impairs formation of long-term aversive memory. bioRxiv 2019. doi.org/10.1101/787325

Principles of open source bioinstrumentation applied to the poseidon syringe pump system. Scientific Reports, 2019. doi.org/10.1038/s41598-019-48815-9

3D printing of biomolecular models for research and pedagogy. JoVE, 2017. doi.org/10.3791/55427