Eric Brandwein

Computer Scientist

Teaching

August 2024 – February 2025, August 2025 – Present — **University Teaching Assistant (Jefe de Trabajos Prácticos)**, *Algoritmos y Estructuras de Datos III, Departamento de Computación, Facultad de Ciencias Exactas y Naturales, UBA*, Buenos Aires, Argentina.

August 2024 – February 2025 — **University Teaching Assistant**, *Algoritmos y Estructura de Datos, Departamento de Ingeniería, Universidad de San Andrés*, Buenos Aires, Argentina.

October 2023 – August 2024 — **University Teaching Assistant (Ayudante de 1ra)**, *Algoritmos y Estructuras de Datos III, Departamento de Computación, Facultad de Ciencias Exactas y Naturales, UBA*, Buenos Aires, Argentina.

February 2019 – February 2020 — **University Teaching Assistant (Ayudante de 2da)**, *Algoritmos y Estructuras de Datos I, Departamento de Computación, Facultad de Ciencias Exactas y Naturales, UBA*, Buenos Aires, Argentina.

Other work experience

January 2022 – July 2022 — **Software Engineer**, *Wildlife Studios*, Buenos Aires, Argentina.

August 2021 – December 2021 — **Software Engineering MTS**, *Mulesoft*, Buenos Aires, Argentina.

March 2021 – August 2021 — **Software Engineer II**, *Medallia*, Buenos Aires, Argentina.

March 2015 – March 2017 — **Software Engineer**, *Mercadolibre*, Buenos Aires, Argentina.

Studies

2023 – Present — **PhD in Computer Science**, *Universidad de Buenos Aires*, Buenos Aires, Argentina.
Advisors: Flavia Bonomo and Ignasi Sau. Topic: Graph thinness and related parameters.

2015 – 2022 — **Licenciado en Ciencias de la Computación**, *Universidad de Buenos Aires*, Buenos Aires, Argentina.
Marks average of 8.9 out of 10. Presented a master's thesis on an algorithm to compute the thinness of a tree graph in $\mathcal{O}(n \cdot \log(n))$ time. The same thesis includes results on the thinness of other graph classes, such as grid and crown graphs.

2010 – 2014 — **Bachelor with orientation on Information Technology**, *ORT High School*, Buenos Aires, Argentina.

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Publications

Preprints

○ *Computing parameters that generalize interval graphs using restricted modular partitions*. Flavia Bonomo-Braberman, Eric Brandwein, Ignasi Sau. Sent for review.

In conferences

○ *On the Thinness of Trees*. Flavia Bonomo-Braberman, Eric Brandwein, Carolina Lucía Gonzalez, Agustín Sansone (2022). Combinatorial Optimization. ISCO 2022. Lecture Notes in Computer Science, vol 13526. Springer, Cham. `https://doi.org/10.1007/978-3-031-18530-4_14`.

In journals

○ *On the thinness of trees*. Flavia Bonomo-Braberman, Eric Brandwein, Carolina Lucía Gonzalez, Agustín Sansone (2025), Discrete Applied Mathematics, Volume 365, Pages 39-60, ISSN 0166-218X, `https://doi.org/10.1016/j.dam.2024.12.027`.

○ *Thinness and its variations on some graph families and coloring graphs of bounded thinness*. Flavia Bonomo-Braberman, Eric Brandwein, Fabiano de S. Oliveira, Moysés S. Sampaio Jr., Agustín Sansone, Jayme Luiz Szwarcfiter (2024). RAIRO-Operations Research, 58(2), 1681-1702. `https://doi.org/10.1051/ro/2024033`.

Talks

○ *Kernelization dichotomies for hitting minors under structural parameterizations*. Séminaire ALGCo, LIRMM, Montpellier, France, October 2025, joint work with Marin Bougeret and Ignasi Sau.

○ *Parameterized algorithms for thinness via the cluster module number*. 11th Latin American Workshop on Cliques in Graphs, Ceará, Brazil, October 2024, joint work with Flavia Bonomo and Ignasi Sau.

○ *Parameterized algorithms for thinness via the cluster module number*. Workshop SINFIN, Ciudad Autónoma de Buenos Aires, Argentina, March 2024, joint work with Flavia Bonomo and Ignasi Sau.

Students

Ezequiel Maidanik	Thesis supervisor for the degree of Licenciado en Ciencias de la Computación, Departamento de Computación, Universidad de Buenos Aires, Buenos Aires, Argentina.
Bárbara Rivero	Thesis supervisor for the degree of Licenciada en Ciencias de la Computación, Departamento de Computación, Universidad de Buenos Aires, Buenos Aires, Argentina.
Manuela Martínez	Thesis co-supervisor for the degree of Licenciada en Ciencias de la Computación, Departamento de Computación, Universidad de Buenos Aires, Buenos Aires, Argentina.
Manuel Robert	Extra-official thesis co-supervisor for the degree of Licenciado en Matemática, Departamento de Matemática, Universidad de Buenos Aires, Buenos Aires, Argentina.

Ayelén Dinkel   Thesis co-supervisor for the degree of Licenciada en Ciencias de Datos, Departamento de Computación, Universidad de Buenos Aires, Buenos Aires, Argentina. Defended on December 2024.

Article Refereeing

Reviewer for LAGOS 2025, ISAAC 2024, and IPEC 2024.

Committees

Organizing Committee member for LAGOS 2025.

Grants and Scholarships

- **Research visit**, covering accommodation and meals. LIRMM, Montpellier, France, October 2025.
- **+Viajes 2024**, covering travel expenses to Ceará, Brazil. Universidad de Buenos Aires, Argentina, 2024.
- **Research visit**, covering accommodation and meals. LIRMM, Montpellier, France, August 2024.
- **PhD Scholarship**. CONICET, Argentina, 2024 - 2029, PIP 11220200100084CO.
- **PhD Scholarship**. UBACyT, Argentina, 2023 - 2024, 20220230100009BA.

Languages

Spanish	**Native**	*Born and currently living in Argentina*
English	**Fluent**	*CAE, University of Cambridge*
Italian	**Good command**	*Trilingual Elementary School, and Italian family*
French	**Basic**	*6-month course with a native French professor*

Other certificates

- Member of the team placing third on the 2019 and 2020 Argentinian Programming Tournaments (TAP).
- A total of 11 medals and recognitions in the National Argentinian Olympiads of Informatics (OIA) and Mathematics (OMA), including national Gold Medal at 14 years old.
- Cambridge Certificate of Advanced English (CAE).

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