

# CHRISTOPHER NEIL GADZINSKI

me@cgad.ski  $\diamond$  <https://cgad.ski>

## EDUCATION

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**Frances C. Richmond Middle School (United States, New Hampshire)** *2010–2012*  
*Middle School*

- Advanced placement (AP) math.
- Played clarinet in the Green Mountain Youth Symphony.

**Music Conservatory of Coimbra (Portugal)** *2012–2016*  
*High School*

- Integrated high school / conservatory. Studied piano.

**University of Coimbra** *2016–2019*  
*Bachelor in Mathematics* *Final GPA: 18/20*

- Received the “Prémio Doutor João Farinha” for graduating with the highest grade in my year.
- Received an undergraduate research grant (“Novos Talentos em Matemática”) from the Calouste Gulbenkian foundation in 2017/2018. I studied the Yannakakis theorem and pursued a conjecture on combinatorial lower bounds for non-negative matrix rank.

**University of Coimbra** *2019–2021*  
*Master’s in Pure Mathematics* *Final GPA: 19/20*

- Received the “Prémio Doutor Renato Pereira Coelho” for graduating with highest grade in my year.
- My dissertation, *From Coordinate Algebras to the Pontryagin Maximum Principle*, is available online: <https://cgad.ski/math/thesis.pdf>.
- Received a research grant from the Fundação para a Ciência e Tecnologia for a project unrelated to my dissertation. I studied a way to adapt low-rank matrix completion algorithms to non-linear models and presented a poster at Effective Methods in Algebraic Geometry (MEGA) in June of 2021.

## POSTERS AND PRESENTATIONS

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**Inferring Polynomial Relationships from Partial Data Using Matrix Rank Minimization** *June 2021*

- Conference poster at Effective Methods in Algebraic Geometry (MEGA).
- Available online: [https://cgad.ski/math/mega\\_poster.pdf](https://cgad.ski/math/mega_poster.pdf)

**A Polynomial Model for Filling In Incomplete Data** *July 2021*

- 15 minute presentation at the Encontro Nacional SPM (Sociedade Portuguesa da Matemática).
- Available online: [https://cgad.ski/math/spm\\_presentation.pdf](https://cgad.ski/math/spm_presentation.pdf)

**Symmetry in Optimal Control** *May 2022*

- Mini-symposium presentation at the French German Portuguese Conference on Optimization (FPG).
- Available online: [https://cgad.ski/math/symmetry\\_in\\_optimal\\_control.pdf](https://cgad.ski/math/symmetry_in_optimal_control.pdf)

## PREPRINTS

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### The Veronese Hitting Subspace Method for Subspace Clustering with Missing Data

*August 2022*

- Available online: [https://cgad.ski/math/hitting\\_subspace.pdf](https://cgad.ski/math/hitting_subspace.pdf)

## JOB EXPERIENCE

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### Optylon

*October 2015*

*Tools: Haskell*

- A brief job as a contracted programmer during high school. I maintained a Haskell application used for scraping real estate websites.

### Freiheit.com

*September 2021–April 2022*

*Tools: Kotlin / Typescript / Kubernetes / Kafka*

- A full-time job as a software engineer. Received excellent performance reviews.

## OTHER INTERESTS

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### Rowing

- Throughout high school and college I rowed competitively for my local team, the Associação Académica de Coimbra. I earned several victories at the Portuguese national level, mainly in the 2x.

## HOBBY PROGRAMMING PROJECTS

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### solemnsky

*January, 2016–October, 2016*

*Tools: C++ / SDL*

*<https://github.com/solemnsky/solemnsky>*

- A prototype 2D multiplayer game, written “from scratch” in C++ with SDL / enet / Box2D during my last year of high school. With the help of several contributors, I got as far as having a playable demo. I had no time to continue development after entering university, and the project was abandoned.