

# Alejo Antonio Salvador

Programmer / Student at the University of Buenos Aires

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Portfolio site: [AlejoSalvador.com](http://AlejoSalvador.com)

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## Extract

I am a Computer Science student at the University of Buenos Aires. During high school, I competed in several national and international Olympiads in Mathematics, Informatics and Physics. My areas of expertise are computer graphics, discrete mathematics, algorithms, data structure and systems programming. I'm currently focusing on learning new graphics APIs and rendering techniques. My main programming language is C++.

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## Education

### University of Buenos Aires

Licenciatura en Ciencias de la Computación, 2014 - Present Day

Rough equivalent to Bachelor of Computer Science + MSc. (Bachelor's degree+Master's degree)

Grade Average.: 8.9/10

### Instituto Albert Einstein

High School Diploma, Natural Sciences, 2008 - 2013

Activities and groups: Chess workshop, Math and Programming Workshops, Mathematical Olympiads and Physics Olympiads.

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## Projects

- Implemented in WebGL a model viewer and a series of shaders to achieve a cartoon look (border detection, hatching, cel-shading, etc).
  - Implemented a Face Identification System through Nearest Neighbors and PCA.
  - Reconstructed objects scanned by computerized tomography, using the method of minimal square approximation.
  - Created an application to edit images making use of SIMD instructions.
  - Developed an IBM-PC operating system with multitasking (emulated through *Bochs*). Tested process isolation and exception handling by coding 8 tasks that try to sabotage each other with system calls.
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## Job experience

- Mathematical Olympiads Trainer (April 2017 to February 2020)
  - Teaching assistant for computer organization 2 (Current job started March 2022)
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## Skills

**Computer Graphics**

**Discrete Mathematics**

**Algorithm Design**

**Systems Programming**

**Software Development**

**Physics**

**Performance Analysis**

**Computer Networks**

**LaTeX**

**Compiler Design**

**Automated Testing**

**SQL databases**

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## Programming

(university experience)

**C/C++**

**x86 Assembly Language**

**JavaScript**

**WebGL**

**Haskell**

**Python**

**Prolog**

## Accomplishments

- **Contestant at the International Olympiad in Informatics 2013**
  - **Contestant at the International Mathematical Olympiad 2013**
  - **Bronze Medal at the Iberoamerican Olympiad in Mathematics 2013**
  - **Bronze Medal at the Conosur International Mathematical Olympiad 2012**
  - **Bronze Medal (2014) and Honourable Mention (2013) at Asian Pacific Mathematical Olympiad**
  - **Bronze Medal in Rioplatense International Mathematical Olympiad 2013**
  - **Bronze Medal at Iberoamerican Informatics Competition by correspondence 2013**
  - **First Place (2012, 2010), Second Place (2009), Third place (2011) and Fourth Place (2013) in the Informatics National Olympiad**
  - **3rd Place in the National Mathematical Olympiad 2013**
  - **Honourable Mention (2009, 2010, 2011, 2012) in the National Mathematical Olympiad**
  - **National Champion (2013, 2010, 2009) and Second place (2011) in Mathematics & Computing Olympiad**
  - **Second Award (2013) in the Physics National Olympiad**
  - **Honourable Mention at the Tournament of the Town (2011-2012, 2012-2013)**
  - **2° reserve for Argentina in the International Mathematical Olympiad 2012**
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## Languages

**Spanish (native)**

**English (full professional working proficiency)**