

# Alejo Antonio Salvador

Software Engineer/ 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 in the last year of my career. My areas of interest 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

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

Grade Average.: 8.9/10

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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

- Teaching assistant for computer organization 2 (Current job started March 2022)  
I helped students understand difficult concepts at the classes and I helped them debugging and understanding what they did wrong at their projects which included x86 assembly programming and developing an operating system running on the *Bochs* emulator.
  - Mathematical Olympiads Trainer (April 2017 to February 2020)  
I trained many students and one of them got to the International Mathematical Olympiad
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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**  
**Neural networks**

### Programming

**C**  
**C++**  
**x86 Assembly Language**  
**Direct X 11**  
**JavaScript**  
**WebGL**  
**Haskell**  
**Python**  
**Prolog**

### Languages

**Spanish (native)**  
**English**  
**(full professional working proficiency)**

### Accomplishments

- **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**
- **Bronze Medal at the Iberoamerican Olympiad in Mathematics 2013**
- **Contestant at the International Olympiad in Informatics 2013**
- **Contestant at the International Mathematical Olympiad 2013**
- **Second Award (2013) in the Physics National Olympiad**