Jonathan Alexander Carrillo Cortés

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Education

Universidad Nacional de Colombia – Bogotá D.C   Expected graduation date: February 2023
Bsc. Systems and Computing Engineering   *GPA 4.5/5.0*

Work Experience

Valiu S.A.S - *Junior Back-end Developer*   July 2020 – April 2021

Worked on a 20 microservices back-end using **NodeJs**, **TypeScript**, **PostgreSQL**, **MongoDB** and **GraphQL**. Designed and developed a **NodeJs** microservice capable of executing low latency remittances (in at most 10 seconds) from Colombia to Venezuela, this microservice executed +28k transactions for a total amount of +300k dollars.

Major Projects

Bash 2 Bash - *Programming Languages*   January 2021 – July 2021

API tool that executes translations of the most common Unix commands to the most common Windows-DOS commands, used **Java** and **ANTLR** for the language processing.

Blur Filter - *Parallel and Distributed Computing*   January 2020 – July 2020

Gaussian Blur image filter developed in **C**, the program has multiple versions that where developed using different parallel computing tools: **POSIX Threads**, **OpenMP**, **CUDA** and **OpenMPI**.

Taurus - *Software Architecture*   July 2019 – December 2019

Worked in a team of 5 developers designing and developing a mobile and web multiplayer maze game, during the development I used **Docker**, **Kotlin**, **Spring-Boot**, **GraphQL**, **JavaScript** and **React-Redux**. Implemented a procedural maze generator based on Kruskal's algorithm.

Skills

Programming Languages

>1 year: C++, C, Java
<1 year: Python, Kotlin, TypeScript, JavaScript, Ruby, VHDL

Programming Competitions

- Contestant at the 2020 ICPC World Finals, Moscow, Russia
- 1st place out of 49 at the 2019 ICPC South America / North Regional and 2nd place in the whole Latin America region
- 1st place out of 119 at the 2019 ICPC Colombian National Contest
- 1st place out of 116 at the 2018 ICPC Colombian National Contest

Leadership

- Team Coach at the Competitive Programming group of my University, organize lectures and guide new members

- Give lectures to high-school students at the Colombian Computing Olympiad program

Technologies

Vim, Git, PostgreSQL, MongoDB, Spring Boot, POSIX, OpenMP, CUDA, Ruby on Rails

Relevant Courses

- Algorithms
- Data Structures
- Software Engineering
- Software Architecture
- Operative Systems
- Parallel and Distributed Computing
- Introduction to Intelligent Systems
- Introduction to Quantum Computing

Languages

- Native Spanish, Proficient English, Conversational German and French

More About Me

- Interests: Software Engineering, Back-end, C++, Computational Geometry, Quantum Computing
- I love listening music and playing guitar