Daniel Sánchez Domínguez

Software Engineer

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Experienced Software Engineer with +3 years specializing in backend development. Enthusiastic about mentoring and sharing knowledge with team members. Thrives in collaborative environments that encourage idea exchange. Possesses a research-oriented mindset, particularly drawn to abstract mathematics and functional programming.

PROFESSIONAL EXPERIENCE

16.Oct.2023 - Dic.2023
RISTOC — **Automation project for**

Automatized the workflow of an online automotive parts store.

- ***PostgreSQL*** *database*
- *backend logic in* ***Python***
- *Shopify integration and automated workflows with* ***Zapier***

Jul.2023 - Dic.2023
Protocol Blockchain Developer — **CriptoMx Guardian**

Working at the design of smart contracts in ***Rust*** *to implement a liquidity staking protocol in the* ***VARA*** *network using the* ***GEAR*** *framework.*

Apr.2023 - ... **Freelancing projects**

Working to develop a basic cybersecurity toolchain (a Fuzzer and Static Analyzer) for analyzing vulnerabilities in WASM binaries used in ***Ink!*** *smart contracts. Utilizing* ***Rust*** *for the implementation.*

15.Jan.2022 - 19.Dec.2022
Embedded Systems Engineer — **John Deere**

Worked in an Agile team using Linux, Python, C, and ARM. Accomplishments include: desig and implementation of a kernel driver for communication between a processor and a microprocessor through UART and the IOP protocol, developing a Python CLI app for booting only USBs with verified ISO images in Windows, solving build issues in Jenkins, and implementing a RTOS module to convert CAN to Bluetooth, taught a series of courses on ***Rust*** *and its application in embedded systems.*

Summer 2022
Consultant Web Developer — **ABC Logistica**

Contracted to document and implement tests in PHP using the Laravel framework. Worked with languages like SQL and JavaScript.

ACADEMIC ACTIVITIES

20-23.Sep.2023 **Hackaton Cripto México Tijuana** : 3er place

Developed a functional MVP of a ***Liquidity Stake*** *over the* ***VARA*** *network. The* ***smart contracts*** *were programmed in* ***Rust***.

17.Aug.2023 **Rust Instructor in a Workshop at CryptoLatin Fest** : (Colombia)

Conducted a workshop targeting developers interested in learning ***Rust*** *and writing smart contracts with* ***Ink!***.

07.Jun.2023 **Rust Instructor in a Workshop at Univ. Iberoamericana**

Workshop oriented to university students, focused to teach them solid foundations on ***Rust*** *and writing smart contracts with* ***Ink!***.

10-22.Nov.2020 **iGEM Competition** : Gold medal

Modification of a bacterium for the expression of ranaspumins, a thermoresistant protein, for producing fire-fighting foam.

Summer 2020 **X Escuela de Verano Virtual de Matemáticas** organized by **UNAM**

Focus on numerical methods to model pandemic dynamics using Python

01-04.Nov.2019 **iGEM Competition** : Bronze medal (Boston, USA)

Designed genetically engineered bacteria for digesting toxic compounds. Used Python for numerical simulations and cluster computing. Created an online wiki to document the project. Presented the project at the iGEM competition in Boston, USA.

Autumn 2019 **Túnel de la biología sintética**

Scientific divulgation activity in which highschoolers were taught about biotechnology through workshops and interactive stands

Autumn 2019 **Program: CONCIENCIA UANL** Participation as organizer

Program to promote STEM skills aimed at low-income high school students. Conducted a course on programming concepts and digital electronics.

04-20.Sep.2019 **Course: Biotecnología de Cianobacterias y Microalgas** : **FCB-UANL**

Hands-on workshop aimed to learn how to extract microalgae, cultivate cyanobacteria and count organisms under a microscope.

Summer 2019 **Course: Biotecnología Aplicada a Biomedicina Molecular** : **CIDEB-UANL**

Hands-on course to learn DNA extraction techniques, protein purification, and identification of diseases through molecular techniques.

EDUCATION

Jan.2023-Feb.2023 **Polkadot Blockchain Academy** : **Parity** x **UBA** (Argentina)

*An in deepth course, research oriented, working with core libraries of the **Substrate** framework in **Rust***

2018-2022 **University studies as Network Engineer** : **UANL** (Mexico)

Focused on systems programming and embedded development

Autumn 2020 - Summer 2021 **The Coding School's Qubit by Qubit** : **IBM**

*Completed a two-semester Quantum Computing course using the **Qiskit** framework*

Spring 2022 **Plutus Pioneers 3rd Cohort** : **IOHK**

*Completed a hands-on course using **Haskell** to learn about the Cardano Blockchain and Smart Contracts development.*

SKILLS AND QUALIFICATIONS

Languages

Native: Spanish, **C1**: English, **A2**: French

Programming Languages

Advanced: Rust, Python, C, Bash; **Intermediate**: Haskell, PHP/Laravel