

# Edwin Brenes

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/Edwin Brenes Portfolio  
/edwin-brenes

Senior year Computer Science and Mathematics Education Student at University of Costa Rica, learning and mathematics lover, with experience working as Back-end Software Engineer in agile teams. Software development and design enthusiast, looking for new challenges and opportunities to improve my skills and learn new ones

## Education

### Univerisity of Costa Rica

*Licentiate's Degree in Mathematics Education*

2020 – Present

San José, CR

### Univerisity of Costa Rica

*Bachelor of Engineering in Computer Science*

2017 – Present

San José, CR

### Univerisity of Costa Rica

*Bachelor of Education in Mathematics*

2015 – 2019

San José, CR

## Experience

### SOIN Soluciones Integrales

*Back-end Software Developer*

Apr. 2021 – Present

San José, CR

- › Design new solutions based on Software Design Patterns and build highly scalable REST APIs and webservices based on microservices with NodeJS, Express Framework, OracleSQL, PostgreSQL and jest

### Technologic People Connection

*Back-end Software Developer (temporary contract)*

Jan. 2021 – Apr. 2021

San José, CR

- › Design and implement solutions based on microservices and RESTful APIs with Java Springboot Framework
- › Design and implement relational databases according to business requirements

### ECI, University of Costa Rica

*Professor's assistant*

Aug. 2020 – Dec. 2021

San José, CR

- › Bring support to students from Software Engineering course and create new material to guide the student's learning and acquisition of new skills with .NET Technologies, JavaScript, HTML, CSS, Git, and Scrum Framework
- › Clarify students doubts about the subject and their projects development

### School of Mathematics, University of Costa Rica

*Full-stack Software Developer (temporary contract)*

Jun. 2020 – Dec. 2020

San José, CR

- › Build web application with .NET core tools and design a database relational model and his implementation with MSSQL

### Centro de Investigación en Matemática Pura y Aplicada (CIMPA)

*Research assistant*

Aug. 2019 – Dec. 2019

San José, CR

- › Research about mathematical dynamic models and differential equations systems

### University of Costa Rica

*Mathematics Professor*

Jan. 2019 – March. 2019, Jan. 2020 – March. 2020

San José, CR

- › Teach mathematic leveling course to first-year students

## School of Mathematics, University of Costa Rica

Professor's assistant

Jan. 2018 – Dec. 2020

San José, CR

- › Bring support to students and clarify students doubts from courses: Functions in several variables (MA0032) and Math Foundations (MA0003)

## University of Costa Rica

Academic projects

2019 – Present

San José, CR

- › Build software and hardware simulations with threads, process and operating system calls in C++ and Python programming languages
- › Develop Parallel K-Means Algorithm in C++ and Python programming languages
- › Develop an Educational Web Platform with ASP.NET technologies under agile methodologies (Scrum framework)
- › Develop an 3D video game with C# and Unity
- › Develop a NLP project applying tf-idf technicians, statistical analysis and using Python programming language
- › Perform a SEIR mathematical model for COVID-19 analysis

## Technologies and Skills

### Programming

- › Programming languages: JavaScript (NodeJS), Java, C#, C++, Python, C, R, Matlab
- › Frameworks: Springboot, ExpressJS, .NET Framework and .NET Core
- › Front-end: HTML, JavaScript, CSS, Bootstrap
- › Parallel and concurrent programming: Pthreads, Threads, OpenMP and MPI with C++ and Python

### Algorithms and performance

- › Analysis of algorithms, computational complexity and data structures
- › Deterministic and stochastic models, simulation and optimization

### Testing

- › Unit Test and Integrated Test: Jest (NodeJS), Junit (Java), Moc and Native testing tools for ASP.NET,
- › UI automated testing: Selenium IDE and Selenium Web Driver

### Databases

- › SQL: Advanced SQL, MSSQL, MySQL, PostgreSQL, OracleSQL
- › NoSQL: MongoDB and Redis
- › Data warehouses: Microsoft SQL Server Integration Services (SSIS) and SQL Server Reporting Services (SSRS)

## Software Development

**Agile methodologies** Work in teams with Scrum

**Control Versions** Git Flow

**Software Design** Clean Code, OOP, Design Patterns, Architecture Design, Functional Programming

## Languages

**Spanish** Native

**English** Advanced