# Karina Suárez
## Engineer / Python Proficient and Probability Advocate

## Profile

Currently, I have a strong hold on my basics of python, SOLID principles and UML diagrams, understanding of various SDLC methodologies and proficiency in working with Agile processes using Jira. Additionally, I have a basic knowledge of Database Design and Modeling, as part of my commitment to learn continuously and become more adaptable, I have completed the PostgreSQL for Everybody Specialization by UMICH.I also have some practice in data structures and algorithms, I have successfully completed the Algorithms Thinking Specialization offered by Stanford Online.

## Projects

View selected project below. More information can be found at [compedu.stanford.edu](http://compedu.stanford.edu).

### CS106A Code in place project

Water Footprint Calculation for California State, focus on residential Outdoor and landscaping Water Use. The footprint estimates the water that evaporates from a Pool, and the amount of water that evaporates from the Lawn. Keeping a fixed area to see the contrast. The data was taken from IWMI World Water and Climate Atlas.

`YOUTUBE`  `STANFORD`  `GITHUB`

### Algorithm Specialization Stanford Online

The specialization is rigorous but emphasizes the big picture and conceptual understanding over low-level implementation and mathematical details.It covers topics such as divide-and-conquer design paradigm, greedy algorithm design paradigm, and various applications including computing network backbones (spanning trees) and efficient data compression codes, as well as fast sorting, searching, and multiplication techniques.

`DIVIDE AND CONQUER`  `SORTING`

## Work Experience

My complete work history is available on [LinkedIn](https://www.linkedin.com).

### Freelancer Online Tutor
Transtutors
2013-2016

- I provided tutoring to students in developing, writing, analyzing, and reviewing programs using workflow charts and diagrams.
- Additionally, I converted project specifications and statements of problems and procedures into detailed logical flow charts for coding into computer language. I also guided engineering students using various tools such as Matlab.

### Computer Science Online Tutor
Tutorme
2023

- Translated logical flow charts into outlines for code assignments.
- Provided feedback on students' code assignments and documentation to create flexible, robust, scalable, and performant solutions.

## Education

### Universidad de Oriente, VE

B.S Petroleum Engineering,September 2018

### Stanford University

CS106A Code in place – Programming, May 2020

## Certifications

### Stanford Online

- Automata Theory
- Design and Analysis of Algorithms Divide and Conquer
- Graph Search, Shortest Paths, and Data Structures
- Greedy Algorithms, Minimum Spanning Trees, and Dynamic Programming
- Shortest Paths Revisited, NP-Complete Problems
- Databases: Modeling and Theory
- Databases: Relational Databases and SQL
- Databases: Advanced Topics in SQL

### Michigan Online UMich

- Database Design and Basic SQL in PostgreSQL
- Intermediate PostgreSQL
- JSON and Natural Language Processing in PostgreSQL
- Database Architecture, Scale, and NoSQL with Elasticsearch