

JESSICA NOVILLO ARGUDO

COMPUTER SCIENCE TEACHER CANDIDATE

Over 14 years of experience **developing and maintaining software**



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PROFILE

I am an experienced software developer passionate about developing innovative and customized programs that meet a company's specific needs. Well-versed in technology and writing code to create reliable systems. I am passionate about computer science and education. I am eager to teach my computer science knowledge to children of all ages, engage them in the use of computers and technology, and provide the motivation they need to succeed academically.

EXPERIENCE

- **STUYVESANT HIGH SCHOOL, SUBSTITUTE CS TEACHER** 2023 – present
New York, NY
 - Took over five AP Computer Science A classes in the second semester of the school year.
 - Reviewed AP CSA curriculum content with students (Java). Taught algorithms and data structures in Java.
 - Currently, preparing the final project using Processing.
- **LCMCOMMODITIES, SOFTWARE DEVELOPER** 2010 – 2023
New York, NY
 - Collaborate closely with quantitative analysts developing python projects for the company brokers team and mainly for the research team
 - Calculate degree days data (both for cold CDD and heat HDD, at county, state and region level) from NOAA forecast and historical temperatures data using population density (1 km x 1 km, USA territory). Calculations involve: estimate hourly temperature curve, regression to obtain the data for every USA point (1 km x 1 km), multiprocessing on server with 100 cores
 - Work on lcmcommodities.com and lcmc-research.com websites with Django, Redis, Django-Channels using websockets, Vue-js on the front-end development. Email templates on lcmc-research.com to send analysis reports to clients. PDF reports automation using LaTeX
 - Build databases for the following data sources and create reports to meet the research team needs: natural gas flow data from Genscape and Reuters, CTFC – Commitments of Traders, Baker Hughes rig data, demand and generation power data from different USA regions, USA gas emissions, oil data from DOE (Departement of Energy), JODI, IEA and Bloomberg
 - Managing multiple debian servers locally and on AWS
 - Managing databases in MySQL (with replication) and PostgreSQL
 - Managing 2T databases
- **SELF-EMPLOYMENT, SOFTWARE DEVELOPER** 2009 – 2010
New York, NY
Worked as a consultant for an energy financial trader. Built a website for trading analysis in Ruby on Rails and Java.
- **APRA FUEL OIL, SOFTWARE DEVELOPER** 2008 – 2009
New York, NY
- **PETROECUADOR, BACHELOR'S THESIS** Mar 2007 – Jun 2008
Quito, Ecuador
Supported systems for decision making in the definition of oil marketing policies

EDUCATION

MSED - Computer Science Education
GPA 3.97
Hunter College
New York – New York
2021 – present
Expected Graduation – May 2023

BS - Computer Science
Universidad de Cuenca
Cuenca - Ecuador
2002 – 2008

SKILLS

Proficient in:
Linux (debian)
Python
Django
Java
MySQL
PostgreSQL
LaTeX
Excel - VBA

LANGUAGES

Spanish Native
English Professional
French Elementary