Berenice Venegas Cotero

DevOps Engineer - AWS Developer Associate certified
Interested in building distributed system in the cloud,
reliable, scalable and fully automated.
Eager to work on a challenging project

Skills

Cloud	AWS: Networking, Security, DB, ECS, Autoscaling, ELB
DevOps	CloudFormation, Terraform, Consul, Docker,
Automation	Atlas, Vault, Rspec/Serverspec, TestKitchen, Chef, unit testing
CI/CD	Git, CircleCI, Jenkins
Scripting	BASH, PYTHON, RUBY
Other	Ansible, C++, JAVASCRIPT, R

Experience

2015–Present **AWS consultant**, Philadelphia.
Created reliable, scalable and fully automated AWS infrastructure as code using Terraform. Special attention to following best practices.
- HPC cluster to run on demand CHARM simulations in AWS.
- Migration of WebSites to AWS: WordPress and Hugo.

2011–2015 **Data Scientist**, TEMPLE UNIVERSITY, Philadelphia.
- Applied multivariate analysis and statistical inference to correlate lipid profile samples with pathologies.
- Applied Bayesian statistics in proteomic and lipidomic profiles to find patterns that would predict anomalies associated with pathologies.

2009–2011 **Associate Scientist**, TEMPLE UNIVERSITY SCHOOL OF MEDICINE, Philadelphia.
- Produced liposomal nano-particle that efficiently controlled drug leakage.
- Manipulated surface characteristics of nano-particle.
- Developed a simulations in R to predict surface distribution and diffusion of lipids.

2006–2009 **Associate Scientist**, TEMPLE UNIVERSITY COLLEGE OF ENGINEERING, Philadelphia.
- Produced a targeted delivered liposomal nano-particle for mammary cancer tumors.
- Performed pharmacological analysis to calculate circulation and particle retention times.
- Created a custom image analysis to transform 2D fluorescence images of tumors into the 3D tumor/organ fluoresce source to determine actual dye concentration.

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github: clamorisse

Postdoctoral Residences

2003–2006 **Lipid lateral distribution in model membranes**, Temple University School of Medicine, Philadelphia.

- Established a standardized method to detect regularly distributed lipids in model membranes.
- Characterized the critical factors that will affect their detection.
- Utilized custom algorithms to performed statistical data analysis.
- Developed a Monte Carlo simulation in C++ to validate the experimental results.

2003 **Improve patch-clamp infrastructure**, Temple University School of Medicine, Philadelphia.

- Implemented a brand new setting to cut costs and enhance efficiency of a patch-clamp circuitry. The goal was to reduce the noise level and be able to detect changes of 2pAmpers accurately.

Education

1997–2003 **Ph.D. Biophysics**, *Universidad Autónoma del Estado de Morelos*, Mexico, Awarded with Honors.

- Recorded single channel of antimycotic AmB using patch-clamp electrophysiology.
- Determined the conditions for maximal appearance of AmB channels.
- Developed an algorithms and coded in C++ to find the different levels of currents and open time intervals of the channels.
- Describe the function of AmB channels as function of membrane properties using statistical analysis.

1991–1997 **Physics–Astronomy**, *Universidad Autónoma de Baja California*, Mexico.

- Awarded the "Early start in research fellowship" for the project: Dynamical simulations to determine the trajectory memory length in n-body interactions.
- Performed numerical simulations in C++.

Awards and Certifications

2016 Diversity Fellowship – DockerCon

2016 AWS – Developer Associate

Presentations

1998-present **Presenter**, *Physics and Biophysics*.
National and International Meetings

Languages

Spanish **Mothertongue**

English **Proficient**

Portuguese **Intermediate**

French **Basic**