

# Varderes Barsegyan

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Software engineer with over 6 years of experience and an academic background in physics and computer science. Completed a variety of projects in cloud-native computing, DevOps, data engineering, and machine learning.

## EXPERIENCE

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**Software Engineer – Infrastructure / DevOps / Site Reliability** Sept. 2019 – Present  
DNAexus, Mountain View, CA

- Building a multi-region and multi-cloud, FedRAMP-compliant bioinformatics platform that stores and analyzes petabyte-scale private genomic data; implementing infrastructure tooling software for deployment and maintenance of the platform.
- Establishing and maintaining a DevOps culture that enables continuous changes and improvements via weekly releases and extensive CD/CI pipelines.
- Ensuring and maintaining the reliability, scalability, and resilience of the platform by incorporating high availability of components and state-of-the-art disaster recovery.
- Working with bioinformaticians on 20% Projects to help with the company's scientific R&D efforts.

**Software Engineer – Cloud Computing** June 2018 – August 2019 (1.2 years)  
The Aerospace Corporation, El Segundo, CA

- Independently designed and submitted an internal R&D project proposal pertaining to novel distributed satellite intelligence technology. The proposal was among the 5 winners out of 18 submissions and received funding to be used by all departments within the Computer Technology Research Subdivision to realize the project.
- Created a Kubernetes-orchestrated data lake with Hadoop, HBase, Hive, Kafka and Drill for processing, storage, and access of satellite telemetry data.
- Developed and deployed a containerized and Kubernetes-orchestrated data processing workflow for the National Oceanic and Atmospheric Administration's Joint-Polar Satellite System. This resulted in a processing time decrease from 1.5 hours per day to less than 10 minutes per day.

**Software Engineer/Graduate Researcher – Bioinformatics** Sept. 2016 – Jan. 2018 (1.5 years)  
Sorin Biophysics Laboratory, Long Beach, CA

Completed two high-utility software projects for current and future research initiatives.

- Developed an unsupervised learning suite for post-simulation data analysis which accelerated the process of obtaining publishable results.
- Developed a dynamic web application for live simulation data visualization which provided researchers with a tool for checking the status of simulations on the Folding@Home network and provided visualizations to show status of individual parameters of simulations.

## EDUCATION

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California State University – Long Beach Graduated May 2019  
**Master of Science in Computer Science, 3.8 GPA**

California State University – Northridge Graduated May 2016  
**Bachelor of Science in Physics, 3.7 GPA**

## SKILLS

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**Languages:** Python, C#, Java

**Tools:** Deployment: Docker, Kubernetes | Big Data: Hadoop, HBase, Hive, Drill, Kafka | AWS | Azure