# Talia Chopra

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## Professional Experience

### Machine Learning Engineer, January 2022 - Present

Gemini, LLC

*Responsibilities / Achievements*

- End to end development of ML models. Includes model research, implementation, and the use of DataBricks and AWS for model productionization and deployment. Models used includes (but is not limited to) decision trees, text sentiment analysis transformers, and Monte Carlo methods. I also developed multiple volatility indicators using econometric and statistical models.

### AI/ML Programmer Writer,  October 2019 - May 2021

Amazon Web Service (AWS) at Amazon, Inc.

*Responsibilities / Achievements*

- Trained machine learning models in the cloud using Amazon SageMaker to create tutorials and demos.
- Used and wrote about AWS ML services, including Amazon SageMaker distributed (a deep learning distributed training library), MXNet, Amazon S3, Amazon IAM, Amazon S3 and Amazon Augmented AI to solve business use-cases.
- Co-authored blog posts on the AWS Machine Learning blog to teach customers how to use AWS services. See examples [here](#).

### Business Development Lead, June 2016 - October 2019

Schneider Estates, Inc.

*Responsibilities / Achievements*

- Research and integrate new technologies into business workflows to improve lead acquisition and customer service, resulting in 2x more leads in the company pipeline, monthly.

## Educational Experience

### Master of Science in Computer Science, Concentration in Machine Learning, Jan 2019 – December 2021

Georgia Institute of Technology (4.0 GPA)

*Key Coursework*: Deep Learning, Machine Learning, Machine Learning for Trading, Computer Vision, Knowledge Based AI, Operating Systems, Graduate Algorithms, AI and Ethics, AI for Robotics, Software Architecture and Design

*Project Highlights:*

- Configured and trained a multi-model CNN model using transfer learning to 1) create embeddings for images of food and 2) categorize food images. Used embeddings and categorizations to perform recipe retrieval for new images. (PyTorch, Python, AWS)
- Tuned and compared the performance of multiple machine learning models, including neural networks, decision trees, SVMs, and decision tree ensemble learners on two binary classification datasets. Improved model performance by 5%, on average. (Python)
- Created a distributed file system using protocol buffers and gRPC. Incorporate a weakly consistent synchronization system to manage cache consistency between multiple clients and a single server. (C++)
- Implemented Q-Learning and Dyna-Q solutions for a reinforcement learning problem - robot navigation. (Python)
- See more projects [here](#).

### Computer Science Coursework 2017 – 2018

Foothill College (4.0 GPA)

*Key Coursework*: Object Oriented Programming in C++, Advanced Data Structures and Algorithms in C++, Linux Shell Programming, Software Design in C++.

### Bachelor of Arts in Economics, Minor in Mathematics 2012 – 2016

University of California, Santa Cruz ● Summa Cum Laude, Highest Honors (3.97 GPA)

*Key Coursework:* Multivariable Calculus, Linear Algebra, Statistics, Real Analysis, Computational Methods and Applications in MATLAB, Econometrics, Macroeconomics, Advanced Topics in Macroeconomics, Microeconomics, Money and Banking.

## Languages and Technologies

**Languages:** Python, C++, C, HTML, CSS | **ML Libraries:** Pandas, Numpy, SciPy, gRPC, openCV, Pillow

**Machine Learning Frameworks:** scikit-learn, Pytorch, MXNet | **Tools and OS:** Spark, DataBricks, Snowflake, AWS, JupyterLab, Looker, Git, Linux, Unix