

# MOISEY ALAEV

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## TECHNICAL SKILL

- **Software Development:** CI/CD, Git, Bash, APIs, REST, MVC, AGILE
- **Web App Development:** Ruby on Rails, Rspec, PostgreSQL, React, JWT, HTML, CSS, Bootstrap
- **Machine Learning Development:** [TensorFlow Certified](#), PyTorch, Scikit-Learn, Pandas, NumPy, Keras, SciPy, R
- **Working Knowledge:** GraphQL, Typescript, Apollo, C++, Java, JavaScript, C#, Docker, Redis

## WORK EXPERIENCE

### [Secureframe](#)

Software Engineer

Remote

July 2022 - Present

- Automated external integrations for **security compliance** (SOC 2, HIPAA, etc.) utilizing **Ruby on Rails** with **GraphQL**
- Delivered production-level code, consistently ranked among the *top 50%* of all GitHub contributors in a fast-paced startup
- Developed internal messaging and ticketing **backend** with Slack and Jira utilizing their public **APIs** and **PostgreSQL databases** which increased sales wins over competitors by *15%*
- Led **MDM** automation improvements powered by APIs to satisfy customers' security compliance that resulted in a *10 point* improvement in *NPS* - calculated from customer feedback
- Reduced user complaints by *40%*, resolving *300* bug and infra issues as part of a task force to improve product experience
- Utilized **RSpec** for **unit** and **integration tests**, ensured robust code quality, and enhanced code coverage by *2%*

### [HADD Machine Learning Research Group](#)

Research Software Co-Lead

Remote

January 2021 - January 2023

- Developed Semi-Supervised models for Nonnegative CP Decomposition of Tensors leveraging **Python's TensorFlow**, **PyTorch**, and **NumPy** modules
- Co-lead a software team to construct an **open-source Python module** for multiplicative update methods with experimental errors reduced to *~4%*
- Tested packages on **raw data tensors** such as EEG videos, preprocessed and imported using **OpenCV**, **Pandas** and **pyTaco**

## PERSONAL PROJECTS

### [LLM Web App - Moisey's Meals](#)

June 2023 - Present

- Developed a **GPT LLM** web application for meal prep scheduling through a **Langchain framework** and Ruby on Rails backend which produced low latency responses
- Implemented user authentication using **JSON Web Tokens** for a secure and personalized conversation history
- Integrated the Rails **REST API** with the **React frontend** which improved the latency of the **UI** by 3 seconds

### [Forecasting Sunspots and Stocks](#)

June 2021 - September 2021

- Designed **time-series RNNs** in **Jupyter Notebooks** using Tensorflow, preprocessed data with **Pandas & Sklearn**, and created windowed datasets
- Predicted Sunspots with **multi-bidirectional LSTMs**, **convolution**, and **lambda** layers: *errors  $\approx 3\%$*
- Predicted Google's Stock Price with LSTMs and **dropout** layers: *errors  $\approx 5\%$*

### [CNN Research & Computer Vision Problems](#)

November 2020 - August 2021

- Spearheaded research on foundations of CNNs, such as convolution, pooling, flattening, dropout, and backpropagation
- Led initial CNN experiment using **Keras** to identify numbers in MNIST dataset
- Achieved *95% classification accuracy* on computer vision datasets in 2021 through iterative model refinement
- Employed **Transfer Learning**, **Image Augmentation**, and **ImageDataGen** with TensorFlow

### [Zombie Maze Dash Game](#)

February 2019 - August 2019

- Architected a interactive C++ game implementing Object Oriented Programming concepts such as C++'s **STL** (abstract data structures), **polymorphism**, **inheritance**, **pointer operations**, and **GUIs**

## EDUCATION

University of California - Los Angeles (UCLA)

September 2018 - June 2022

B.S. Mathematics of Computer Science, **Minor** in Statistics - **GPA: 3.55**

- **Programming Coursework:** Data Structures, Algorithms, Software Construction, Operating Systems, Intro to AI, Neural Networks and Deep Learning
- **Mathematics Coursework:** Multivariable Calculus, Discrete Structures, Graph Theory, Machine Learning
- **Statistics Coursework:** Probability, Data Analysis, Data Theory, Modeling and Data Mining