# Pratiksha Pai

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## EDUCATION

- **Georgia Institute of Technology**                                        Atlanta, GA
  *Masters in Electrical and Computer Engineering;*                         *Aug 2022 - Present*
  **Relevant Coursework:** *Advanced Programming Techniques, Statistical Machine Learning.*

- **National Institute of Technlogy, Karnataka (NITK)**                     Surathkal, India
  *Bachelor of Electrical and Electronics Engineering; GPA: 9.03/10.0*      *Aug 2015 - May 2019*
  **Relevant Coursework:** *Neural Networks and applications, Computer vision,*
  *Probability Theory, Linear Algebra, Signals and Systems, Advanced Digital Signal Processing.*

## EXPERIENCE

- **Infoworks.io**                                                          Bangalore, India
  *Senior Software Engineer*                                                *Jan 2021 - July 2022*

  - *Awarded **Be The CEO award for 2021** amongst **75 developers** for outstanding ownership skills.*
  - *Received **Spot awards twice** for developing key features and being an excellent team player.*

  - **HPA for MongoDB on Kubernetes:** Designed automated shifting between MongoDB standalone and three-node replicates, an auto-scaler to scale components in Kubernetes. Implemented an automated highly available setup with replication and failover time of a maximum of **0.47 seconds and 9 seconds.**
  - **Major Version Product Upgrades:** Developed Python Taskflows to migrate large **Mongo metadata of 2.6 million** documents and large resources. Handled 3 major version upgrade lines running on multiple customer environments. Developed end-to-end Python Taskflows to install with MongoDB Atlas DB Layer. Wrote utility functions for a smooth transition to Atlas setup for **Mongo Metadata of the order 200GB**.

- **Infoworks.io**                                                          Bangalore, India
  *Software Engineer*                                                       *June 2019 - Dec 2020*
  **- Automations on Cloud Deployments:** Developed Jenkins pipelines to build and deliver **13 weekly incremental updates** on Staging and Production Testdrive environments, adding a strategic partner to the company. Set up production monitoring and weekly backup pipelines using AWS CloudWatch, Lambda and AMIs. Automated nightly shutdowns for idle resources **cutting costs by 35%**.

- **Citicorp Services India Limited**                                       Pune, India
  *Software Trainee*                                                        *May 2018 - Jul 2018*
  **- UI Automation testing:** Designed an automated regression testing suite using Cucumber Framework.

## ACADEMIC PROJECTS

- **Unpaired image-to-image translation using CycleGAN**: Designed a Cycle Generative Adversarial Network(CycleGAN) to transform horse images to zebra using Python Keras on UC Berkeley CycleGAN Dataset. Designed a generator setup with encoder, a ResNet transformer, and a transpose CNN decoder block; discriminator setup with a traditional CNN block. Trained the model to minimize cycle consistency loss to convert all horse images in the testing set to zebra. *(April '19)*
- **Controlling a prosthetic arm using EEG signals**: Designed a Brain-Computer interface to control 3D printed prosthetic limb with EEG signals. Extracted filtered EEG signals from Xavier Composer and trained an Artificial Neural Network (ANN) using Python Tensorflow. Demonstrated a simple clench/unclench operation on the arm with an accuracy of **78%**. *(April '18)*
- **Classification of EEG signals for detection of Epilepsy**: Designed a binary classifier to separate epileptic EEG signals from the rest. Researched multiple feature extraction methods and implemented wavelet transform, Fast Fourier transform (FFT) for extracting features from Bonn Database using MATLAB. Implemented an ANN using Python Tensorflow and obtained an **accuracy of 85%**. *(April '18)*

## TECHNICAL SKILLS

- **Languages**: Python, C++, MATLAB, Bash
- **Tools**: Jenkins, Git, PyTorch, Keras, Tensorflow, Kubernetes, Docker

## CO-CURRICULAR & VOLUNTEER ACTIVITIES

- Core Placement Coordinator for Batch'19 for handling 60+ companies.
- Hindustani Classical Musician with 10 years of training
- Taught underprivileged high school students Math for 2 years, as a part of NITK Beach-School