# Raghav Patel

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## **EDUCATION**

Jan 2022 - May 2024 The University of Texas at San Antonio (UTSA) (GPA: 3.96/4.0)

M.S. Computer Science

Sep 2016 - May 2020 New Jersey Institute of Technology (NJIT) (GPA: 3.86/4.0)

B.S. Computer Science and Math

## WORK EXPERIENCE

#### Neuromorphic Artificial Intelligence Lab, UTSA

June 2023 - May 2024

Research Assistant

San Antonio, TX

- Reduce continual learning spiking neural network training time by 50% by using 75ms time duration and hyperparamter tuning with a genetic algorithm. Maintains comparable accuracy in half the time.
- Develop dashboard to visualize and interpret temporal nature of 3 different spiking neurons.
- Presented neuroscience based machine learning insights through 2 poster presentations in neuromorphic computing conference (NICE) and AI Winter School @ UTSA

#### Sleep and Memory Computational Lab, UTSA

Oct 2020 - May 2023

Research Assistant

San Antonio, TX

- Reduce spiking neuron training time from 10hrs to 1-5 mins by storing necessary calculations in memory instead of calculating in online manner per training sample
- Develop and debug 4 behavioral neuroscience experiments for sleep studies using PsychoPy framework.
- Automate sleep scoring using Python YASA (sleep medicine research library). Provides actionable insights within seconds instead of waiting days for human sleep scorer feedback.

Nomura Securities June 2019 - Aug 2019

Technology Analyst Intern

New York, NY

- Develop RESTful API in Java to persist risk related performance data for clients. Allows to track data for future analysis.
- Write Python CLI to fetch Development Operations data to analyze technology usage throughout various teams.

Deutsche Bank June 2018 - Aug 2018

Technology Analyst Intern

New York, NY

- Migrate 2 SQL server applications to Informatica data masking to make regulatory compliant.
- Develop word cloud visualization for stock prediction sentiment analysis project in Python.

### SKILLS

Programming Python, MATLAB, Java, MySQL, JavaScript

Libraries PyTorch, Pandas, Numpy, Matplotlib Technologies Git, Jenkins, AWS, RESTful API

Interests Brain-Inspired Machine Learning and Artificial Intelligence, Spiking Neural Networks and

Continual/Lifelong Learning, Plasticity Mechanisms, Computational Neuroscience