

# Akshay

▪ xa@gatech.edu ▪ xadahiya.me ▪ github.com/xadahiya ▪ linkedin.com/in/xadahiya

## Education

---

**Georgia Institute of Technology** – Atlanta, USA **Jan 2019 - Present**

- Master of Science in Computer Science (OMSCS)
- 

**Deenbandhu Chhotu Ram University of Science and Technology** – Murthal, India **Aug 2014 - June 2018**

- Bachelor of Technology in Electronics and Communication Engg.
- GPA 7.05/10

## Experience

---

**Organization Administrator, Python HYDRA** – Google Summer of Code, 2018 **Mar - Aug 2018**

- Oversaw the progress of our organization and its students throughout the program.
- Mentored two projects, **OpenAPI to Hydra parser** and **a generic client** for hydra based web APIs using Redis.

**Participant with Python Software Foundation** – Google Summer of Code, 2017 **May - Aug 2017**

- Designed a generic web framework (**Hydrus**) using Flask, that can create Semantic web-based Restful APIs using a single specs file (Hydra Vocabulary).
- Designed a generic database schema to store data in form of triples.
- Built an application (**Hydra flock demo**) that simulates the movements of a flock of drones using various Hydra based API servers that talk to each other autonomously.

**Mentor and Project Reviewer (Independent Contractor)** – Udacity **Jan 2017 - Present**

- As a Mentor, I provide direct feedback and support to students enrolled in Udacity's Full Stack and React and Deep Learning Nanodegree programs.
- As a Project reviewer, I strive to give actionable and helpful feedback to students while improving my coding skills
- Mentored more than 1000 students across various Nanodegree programs.

**Founder** – Typinggeek **Aug 2015 – Dec 2017**

- Founded **Typinggeek**, a startup to help people learn to type more efficiently using Django, AWS, and PostgreSQL.
- Has a user base of ~5000 people across the globe.
- Managed everything from design mockups to user research to final deployment.

**Graduate Programmer** – Fidelity International **June 2018 – Nov 2018**

- Delivered a functional prototype of a real-time feedback application during training.
- Used technologies like web sockets, Redis and Django to achieve near real-time results.
- Worked in behavioural finance team to help design tools for portfolio managers using React

## Projects

---

### TD Learning Cliffwalking - [Github](#)

- Implemented Temporal difference learning algorithms (SARSA, Q-learning and Expected SARSA)
- Used the algorithms to find the optimal policy for the OpenAI CliffWalking environment.

### Readable - [Github](#)

- Built a social content and discussion web application that allows users to submit content in addition to voting and commenting.
- Leveraged React to build a dynamic user interface, as well as Redux to manage global application state.

### Sentiment Analysis - [Github](#)

- Pre-processed 25000 IMDB movie reviews.
- Implemented algorithms like gradient descent and backpropagation.
- Used this MLP to categorize user reviews into positive and negative.

### Hydra Flock Demo – [Live Demo](#) [Github](#)

- Designed a forestry patrol simulation to demonstrate use cases of hydrus and semantic web.
- 5 different servers interact with each other autonomously, one acts as Central controller and the rest as drones.
- Users can send commands and control the drones using natural language like format.

## Relevant Coursework

---

- Full Stack Web Developer Nanodegree (**Udacity**)
- React Nanodegree (**Udacity**)
- Graph Search, Shortest Paths, and Data Structures (**Stanford, Coursera**)
- Divide and Conquer, Sorting and Searching, and Randomized Algorithms (**Stanford, Coursera**)
- 6.00.2x: Introduction to Computational Thinking and Data Science (**MIT, Edx**)
- Front End Web Developer Nanodegree (**Udacity**)
- Tech Entrepreneur Nanodegree (**Udacity**)
- LPI Linux Essentials (**Linux Academy**)
- 6.00.1x: Introduction to Computer Science and Programming Using Python (**MIT, Edx**)
- LFS101x.2: Introduction to Linux (**Linux Foundation, Edx**)

## Skills

---

<b>Languages</b>	Python, JavaScript, Haskell
<b>Web</b>	Semantic Web, React, ES6, Django, Linked Data, Hydra Draft, JSON-LD, Redis, React Native, Google App Engine, Flask, Docker, SEO
<b>Reinforcement Learning</b>	Dynamic programming, Policy iteration, Truncated Policy iteration, Monte Carlo prediction, Temporal Difference learning, Sarsa, Q-learning, Expected Sarsa, Deep Q-learning, Policy gradients, Actor-Critic methods
<b>Deep Learning</b>	TensorFlow, Keras, Convolutional neural networks, Multi-level perceptron, Model tuning, Cross-validation, Numpy, Pandas