Alexander Gurung

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Education

Georgia Institute of Technology — ***Atlanta, GA***
B.S. Computer Science | College of Computing — *August 2018 — Present*

- Member of Honors Program, The Agency & RoboJackets Robocup software teams
- Relevant Coursework: Data Structures & Algorithms, Discrete Mathematics, Honors Linear Algebra, Object Oriented Programming

Thomas Jefferson High School for Science and Technology — ***Fairfax, VA***
Advanced Studies/Jefferson Diploma — *August 2014 — June 2018*

- GPA (Weighted) — 4.395/4.0
- President of Development Club & Linguistics Club
- Relevant Coursework: Artificial Intelligence, Mobile App Development, Web App Development, Multivariable Calculus

Work Experience

Undergraduate Researcher — Automated Algorithm Design VIP Team — ***Atlanta, GA***
January 2019 — Present

- Will receive 10 weeks of training in Genetic Algorithms, Machine Learning theory, and team-specific frameworks and infrastructure using Python and C++.
- By the end of the first semester will join a sub-team and engage in research concerning creating hybrid algorithms to solve complex problems

Program Assistant — Johns Hopkins Center for Talented Youth (CTY) — ***Alexandria, VA***
July 2018 — August 2018

- Assisted the Introduction to Robotics class at the Alexandria site, co-teaching concepts including the fundamentals of Java, network design, and the engineering process

Teacher's Assistant — Fairfax County Public Schools — ***Fairfax, VA***
July 2017 — August 2017

- Helped run the Foundations of Computer Science class of ~30 students
- Gave presentations on key concepts like basic data structures (primitives, arrays, etc)
- Created Java demos (e.g. github.com/alex-gurung/pacman-demo) to show possible projects they could create, including pacman, a physics demonstration, and flappy bird

Select Personal Projects

Make a Face — Deep Learning Hackathon 2018 (1st Place) — ***Atlanta, GA***
September 2018

- Made a web app with 2 other teammates where the goal is for the user to match the given image's facial expression
- Used Convolutional Neural Networks and Haar Cascades to detect faces, emotion, and key facial reference points
- Personally trained the CNN to detect facial reference points using Keras
- Designed an algorithm to determine facial similarity using average difference between facial points after applying a change of basis

Local Neural Style Transfer — Mobile/Web Application Research Lab — ***Fairfax, VA***
September 2017 — April 2018

- Created an Android App to perform neural style transfer purely locally
- Researched modern methods for performing neural style transfer and designed/ trained my own models using Tensorflow and Pythong
- Wrote the application using Java and the accompanying Tensorflow libraries

Lighthouse — HackTJ 2017 (Palantir Social Impact Award) — ***Fairfax, VA***
March 2017

- Created a cross-platform app to connect those in need of quick temporary housing in times of crisis with those willing to provide
- Led front-end development using React-Native and assisted back-end development using Flask and MongoDB

Skills & Interests (Most to Least Experienced)

Languages:

- Python, Java, HTML/CSS/JS, GoLang, C++, Dart, R

Frameworks & Tools:

- NodeJS, Android, Git, React, React-Native, VirtualBox, JUnit, Firebase, Tensorflow, Keras, Flutter, AngularJS

Operating Systems:

- Windows, Linux