ISABELLA PHAM

Seeking 2020 Internships in Computer Science

CONTACT

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EDUCATION

RUTGERS UNIVERSITY Class of 2022
-B.S. Computer Science, Cognitive Science with Mathematics minor
-GPA: 3.9/4.0
-Honors: TA for Discrete Mathematics, Dean's List, Honors Mathematics, Governor STEM Scholar, Douglass Residential College, HackRU Organizer

RELEVANT COURSEWORK

-Calculus I,II,III,IV (Differential Equations)
-Cognitive Science
-Computer Architecture
-Data Structures
-Discrete Mathematics
-Introduction to Programming
-Linear Algebra
-Microeconomics, Marcoeconomics
-Mathematical Theory of Probability
-Research in Cognitive Science
-Statistics I

PROGRAMMING LANGUAGES

-Python
-Java
-C/C++
-SQL
-HTML/CSS/Javascript
-Maple/Matlab

SKILLS

-Computer Vision
-Machine Learning
-Natural Language Processing (NLTK)
-matplotlib
-AWS (Kinesis Firehouse, Kinesis Streams, EC2, Cognito, Elasticsearch, Logstash, Kibana, Lambdas, DynamoDB, Redshift, S3)
-Git
-Adobe: Photoshop, Premier Pro
-Computer Aided Design: Autodesk Inventor

EXPERIENCE

Colgate-Palmolive

Computer Vision Research Intern | August 2019 - present

- Used the camera 2 API for image procesing to detect oral anomalies
-Created image enhancement filters in MATLAB such as an alpha trimmed mean filter, Wiener filter, contrast adjuster via histogram equalization, low light illuminator, and RGB normalizer to clearly define capillaries in an image

SEQAM Lab

Research Assistant | January 2019 - present

- Developed Python code that utilizes the USDA Search JSON API to collect nutritional information for ingredients
-Dealt with failure cases such as queries that returned no results by using natural language processing through the NLTK library to modify the query
-Utilized the matplotlib library to determine the entropy distribution of queries to qualitatively determine a proper entropy cutoff to ensure the accuracy of results
-Presented research at a Research Symposium
-Received official lab safety training from Rutgers to work in any dry and wet lab

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Amazon

Software Development Engineer Intern | May 2019 - August 2019

-Designed several data transfer pipelines between AWS Redshift and AWS Elasticsearch which use Datanet/EDX/DJS, Kinesis streams, Kinesis firehose, and S3/Lambda
-Programmed a data transfer pipeline utilizing lambdas between Redshift to S3 to Elasticsearch using SQL and Python
-Developed data aggregation tools using the Elasticsearch, Logstash, Kibana (ELK) stack
-Wrote Java code that utilized lambdas and streams to emit metrics to service logs
-Won 1st place at intern hackathon using Javascript, Node.js, JSSoup to create a web surfing Alexa skill for the nonprofit organization TSF which aids paraplegics and quadriplegics
-Received software development engineering training in an Amazon coding bootcamp
-Received machine learning training through Amazon's machine learning university

FTC Lancer Robotics

Programmer | September 2016 - August 2018

-Tracked robot using encoded motion and a field positioning system using sensor fusion (geomagnetic, magnetic, gravity field sensors, 9 degree accelerometer)
-Created camera algorithm with blob limiter to analyze bitmaps in polynomial, rather than exponential, time

Flight and Space Program

Programmer | September 2012 - January 2016

-Conducted near-space research by launching CubeSats into space
-Worked alongside Microsoft Principle Escalation Officer Dan Ruder, programming a Geiger counter, digital light, pressure, and oxygen sensors in C++