Reagan Kan
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Objective
An enthusiastic and efficient computer programmer seeking a full-time software position starting January 2021.

Education
BS in Computer Science, Georgia Institute of Technology, Atlanta, GA August 2018 – December 2020
GPA 3.90 / 4.0

Work Experience
- **Georgia Tech Research Institute**
  [Summer 2020] Research Intern: Adversarial Machine Learning for PDF Malware.
  - Studied attacks and defenses for adversarial examples in the image & malware domains.
  - Automated the Reverse Mimicry Attack, which targets PDF malware detectors. Leveraged the PeePDF tool.
  - Tested the effectiveness of the automated Reverse Mimicry Attack on custom built TensorFlow PDF malware classifiers.
- **Georgia Tech**
  [Spring 2020] Undergraduate Teaching Assistant: CS 2050 Intro Discrete Math.
  - Graded assignments and exams, held weekly office hours, co-taught weekly recitation section.
- **Georgia Tech Research Institute**
  [Fall 2019] Machine Learning Student Research Assistant: EMADE
  - Researched genetic automated machine learning (autoML).
  - Integrated new evolvable computer vision tracking algorithms into GTRI's autoML framework, Evolutionary Multi-objective Automated Design Engine (EMADE).

  [Summer 2019] Research Intern: EMADE
  - Began efforts to determine the plausibility of integrating a co-evolutionary approach in EMADE.
  - Designed a test bed that runs genetic programming processes mimicking the framework's behavior for several trials.
  - Developed a polymorphic class that supports co-evolution, implemented using a genetic algorithm, and regular evolution.
  - Wrote python scripts for generating plots and visualizations of the data collected from experiments.
- **Georgia Tech**
  [Spring 2019] College of Computing Tutor:
  - Helped students taking Discrete Math and Object-Oriented Programming in Java. Meetings with students were one on one and by appointment.

Projects
- **[Spring 2019 – Spring 2020] Junior Design Project**
  - NLP sub-team of the Automated Algorithm Design Team, which works to expand EMADE.
  - Added stemming and lemmatization primitives.
  - Implemented architecture for multilabel classification with neural networks.
- **[Spring 2020] Deep Learning Final Project:**
  - Compared various methods for link prediction on YouTube dataset.
  - Added spectral embedding to SEAL framework, which uses Graph Neural Networks.
- **[Fall 2019] Machine Learning Final Project:**
  - Compared classification techniques, including regression, random forests, and neural networks.
  - Evaluation based on performance on Crowdsourced Mapping Data Set.
- **[Summer 2019] Sudoku:**
  - Web based Sudoku game written with Javascript.
- **[Spring 2019] 2048 Game:**

- A recreation of the single player puzzle game. Designed using the C language for Game Boy Advance as part of the Computer Organization & Programming course.

- **[Spring 2019] Risk Game:**
  - An adaptation of the multiplayer board game. Written with Scala and made in collaboration with four team members for the Objects and Design course.

Programming Languages
C/C++, Java, Python(Tensorflow, PyTorch), Scala, R, CSS, Javascript

Courses
[Spring 2020] Intro-Perception & Robotics, Automata & Complexity, Deep Learning, 2nd Course in Linear Algebra, Combinatorial Analysis
[Fall 2019] Systems & Networks, Design & Analysis Algorithms, Intro Artificial Intelligence, Machine Learning, Linear Algebra with Abstract Vector Spaces
[Spring 2019] Data Structures & Algorithms, Objects & Design, Computer Organization. & Programming, Applied Combinatorics
[Fall 2018] Object Oriented Programming in Java, Discrete Math, Statistics and Applications