MAGGIE CAO

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PROFILE

Energetic software developer who loves to develop applications using high-tech implementations. Self-starter with hands-on experience in machine learning using Keras and Tensorflow, multiprocessing, object-oriented programming and cloud computing. Currently building a mobile AI application that will be deployed into an IOS app in several months.

SKILLS

Love Python	*SSH*	*Vim*
Comfortable with C/C++	*Raspberry Pi/Arduino*	*Eclipse*
Tensorflow/Keras	*Digital Logic Design*	*Vmware/Virtualbox*
Anaconda/Jupyter Notebooks	*Git/Subversion*	*Docker*
Google Cloud	*Linux*	*OOP*

WORK EXPERIENCE

Happy Landing Games — Freelance Software Developer
New York, NY - Mar. 2018 – Present

- Working with two Brooklyn College alumni to develop a mobile game application in Unity.
- The script and graphics of the game is created by independent writers, animation and graphic design experts.

Star Scholars Academy — Private Tutor
Brooklyn, NY - Apr. 2018 – Present

- Interactively directs lessons in mathematics and writing during one-on-one session to educate charter, high school and college students.
- Organizes and engages young students with technology and programming using Arduino and digital electronics.

VOLUNTEER EXPERIENCE

PostgresConf US 2018 — Conference Access
Jersey City, NJ - Apr. 18, 2018 – Apr. 20, 2018.

- Assisted with registration by answering questions attendees had about the event, such as times of conferences and video availabilities.
- Welcomed attendees and professional speakers by distributing PostgresConf souvenirs.

Big Data NYC — Registration
New York, NY – March 7, 2018.

- Guided with the registration of participants in the evening of exciting talks from data science industry leaders and experts.

EDUCATION

Brooklyn College — B.S. in Computer Science
Brooklyn, NY - Sep. 2014 – Dec. 2017
GPA: 3.39/4.00
Selected Coursework: Group Projects I, Workstation Programming, Information Security, Design and Implementation in Java, Analysis of Algorithms, Operating Systems, Object-Oriented Programming

Cooper Union – Irwin S. Chanin School of Architecture
New York, NY - Sep. 2008 – May 2013
Selected Coursework: Digital Logic Design, Microcontroller Projects in Arduino, Computer

PROJECTS

Mobile AI Fashion — Spark, Python 3

Apr. 2018 - Present

- Developing an IOS application for classifying fashion brand names in real time video analysis and image recognition.
- Scraping modern fashion data from the web using Python and Spark's server.
- Deployment will be using a mobile net architecture.

Simple Shapes Classification using CNN — Keras, Python 3

Sep. 2017 – Dec. 2017 - 3.5 mos. | https://mahgieeee.github.io/cnn_project_details.html

- Trained a convolutional neural network that can classify 2-D shapes on a Google Cloud VM.
- Test set performed at a 90% accuracy with a 1% loss on 20,000 images.

Mirai Botnet Research/Testing — Linux, mySQL

May 2017 - 1 mo. | https://mahgieeee.github.io/MiraiSecurityProject.pdf

- Executed the Mirai source code using two Linux servers.
- Analyzed the cross-compiling processes, loaders and CNC tables that were necessary for master and bot configurations.

Rotate K Game — Google Code Jam, OOP, C++

Apr. 2016 – May 2016 - 3 mos. | https://mahgieeee.github.io/Google_Code_Jam/Board.html

- Formed a two-player board game where the board can be rotated once.
- The winning board has the same k-matched colors horizontally, vertically and diagonally.

Simulation of OS — C++

Apr. 2016 – May 2016 - 2 mos.

- Handled software interrupts and used process scheduling algorithms to emulate the job processes of an operating system.
- Program handled I/O and other requests made by a secondary program.

Microcontroller Parallel Park Car — Arduino

Mar. 2012 – May 2012 - 3 mos. | https://mahgieeee.github.io/microcontroller.html

- Built the mechanisms of a mini-robotic car, which had a motor shield, IR sensors, dc motors, gear box and servos.
- Wirelessly controlled the directions of the car's movement and created an Arduino implementation that could automatically parallel park on its own in between two objects.

Simple Enigma Machine — Digital Logic Design

Mar. 2011 – May 2011 - 3 mos. | https://mahgieeee.github.io/Enigma_Machine_Project.pdf

- Manually built the Enigma machine using letters A-H and 2 rotors.
- Self-designed analog digital circuits.