Norman Zhao

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normanzhao.github.io/

EDUCATION:

New York University's Tandon School of Engineering　　　　　**Expected Graduation: May 2018**

Bachelor of Science in Computer Engineering

Curriculum Highlights: Python, C++, Algorithms, Circuits, Electronics, Computer Architecture, Databases, Machine Learning, Embedded Systems, Digital Signal Processing, Offensive Security, Penetration and Vulnerability Testing

WORK EXPERIENCES:

- **NYU Athletics**　　　　　　　　　　　　　　　　　　　　　　**Brooklyn, NY**

  Assistant to the Supervisor　　　　　　　　　　　　　　　September 2016-Present
  - Designed and 3D printed solid placard holders using Autodesk Inventor and laser cut supervisor placards using Adobe Illustrator. The placards and placard holders were used to inform patrons of supervisors on duty.
  - Promoted fitness and health within NYU-Tandon by participating in training and welcome videos, as well as tabling to spread awareness of both sporting events and fitness challenges sponsored by NYU-Athletics.
  - Designed and laser cut multiple rule boards.

- **Bazaarvoice**　　　　　　　　　　　　　　　　　　　　　　　**Austin,TX**

  Data Analyst Intern　　　　　　　　　　　　　　　　　May 2016- December 2016
  - Used Python (numPy and pandas) to rebuild two data pull scripts that provided metrics both internally and to the Marketing department. The two scripts were refined by optimizing legacy code and utilizing multiprocessing, decreasing the runtimes from 130 hours to 14, and from 60 hours to 10. Also built numerous ETL scripts that compiled data into CSVs, Excel files, databases, or emails sent directly to Bazaarvoice clients.
  - Overhauled and maintained internal tools provided by the Data Analytics for departments' uses by utilizing PHP and Python while also acting as a helpdesk and writing documentation.

PROJECTS:

- **2D Plotter**

  Senior Design Project for Computer Engineering major at NYU-Tandon.
  - Used Tkinter and Python to design a GUI that allowed a jpeg/png/bmp image to be loaded and translated into G-code.
  - Implemented a Dijkstra-like algorithm to find all points of discrete lines.
  - Programmed an Arduino to interpret G-code and move two stepper motors and a solenoid accordingly to draw the image.

- **Jobsend.io**

  Launched a website that compiled job listings from major career sites and sends a daily email to 500+ users.
  - Used BeautifulSoup and pandas to gather and compile listings, along with pertaining information such as job title, location and career field, from multiple sites.
  - Employed AWS services such as EC2 to host the site, S3 to host the database and store daily listings, and SES to send the emails.
  - Designed a simple interface for users to enter in their information using Bootstrap, JS and HTML.

- **Machine Learning and Digital Signal Processing**

  Trained a neural network to recognize handwritten digits on a computer
  - Trained a neural network using 70000 MNIST images over 40 epochs
  - Was accurate within 99% on test data, and about 75% on user input.

SKILLS:

- Python(Keras, numPy, pandas, BeautifulSoup), C++, SQL, Javascript, HTML, CSS, PHP, IDA, Adobe Ilustrator/Photoshop/Flash, Microsoft Word/Excel/Powerpoint, Autodesk Inventor, Xilinx ISE, Multisim
- Arduino, Soldering, electronic prototyping, basic circuit design and digital signal processing
- Basic networking and IT
- Familiar with Linux based development and AWS

ADDITIONAL:

- Fluent in English and Chinese
- US Citizen Employment Status