

# Norman Zhao

Computer Engineer specializing in Python and Data Engineering  
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## Work Experiences

- **United Technologies Corporation-Carrier Transicold** June 2018  
*Embedded Software Engineer* Syracuse, NY
- **New York University** September 2016 - May 2018  
*Assistant to the Supervisor* Brooklyn, NY
  - Designed and modeled fitness materials using Autodesk Inventor and Adobe Illustrator. Fabricated materials using laser cutters and 3D printers.
  - Promote fitness within the NYU community.
- **Bazaarvoice** May 2016 - December 2016  
*Data Analyst Intern(remote)* Austin, TX and Brooklyn, NY
  - 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 for those tools.

## Education

- **New York University's Tandon School of Engineering** 2014 - 2018  
*Bachelor's 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

## Projects

- **Jobsend.io**  
*Webapp that compiles job listings from major career sites and sends a daily email to 750+ 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(pandas, numPy, BeautifulSoup, Scrapy, Keras, tensorflow), SQL, Javascript(jQuery,D3,React), HTML, CSS, PHP, C++, Docker, Adobe Illustrator/Photoshop/Flash, Microsoft Word/Excel/Powerpoint, Autodesk Inventor
- Embedded systems, Arduino, Soldering, electronic prototyping, basic circuit design and digital signal processing
- AWS and Linux based development