Richard Shen

http://souloist.github.io
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EDUCATION

NEW YORK UNIVERSITY
M.S. in Electrical Engineering
2014 – 2016 | New York, NY
Specialization: Signal Processing

RUTGERS UNIVERSITY
B.S. in Biomedical Engineering
2010 – 2014 | New Brunswick, NJ
Minors: Mathematics/Psychology

LINKS

Github:// **souloist**
LinkedIn:// **richardzshen**

COURSEWORK

GRADUATE
Probability and Stochastic Processes
(Teaching Assistant)
Data Structures and Algorithms
Matrix Theory
Network Control and Optimization
Advanced Digital Signal Processing

UNDERGRADUATE
Probability Theory
Linear Algebra
Graph Theory
Signal and Image Processing
Kinetics and Thermodynamics
Transport Phenomena

SKILLS

PROGRAMMING LANGUAGES
Proficient:
Python • SQL
Familiar:
JavaScript • Go

WEB TECHNOLOGIES
SQLAlchemy • AWS • Pyramid
React • Node.js • Webpack • Gulp

SOFTWARE/OTHER
PostgresSQL • Mercurial/Git • Docker
Vim • Linux (Ubuntu) • Bash

EXPERIENCE

TRUVERIS | Software Engineer
Sept 2016 – Current | New York, NY
- Lead engineer on Patient Access Services (PAS)
- Designed and implemented claims adjudicator capable of handling millions of requests a month.
- Integrated additional copay programs to IVR system and web portal for prescription-drug coupon activations, using Twilio and third-party adjudicators.
- Built a text messaging program for the prescription savings program which included custom messages, automated reminders, and SMS prescription-refill requests.

TRUVERIS | Software Engineering Intern
May 2016 – Aug 2016 | New York, NY
- Developed features for the OneRx pharmacy price comparison web app using React.js and Flux.
- Implemented testing infrastructure for React applications with Karma, Jasmine, Enzyme, and PhantomJS.
- Trained classifier with prescription data using convolutional neural network and TensorFlow.

CODECADEMY | Engineering Mentor
Feb 2016 – Sept 2016 | New York, NY
- Taught Python, Java, JavaScript, SQL, React and version control with Git.
- Conducted code reviews with new students and aided in learning programming fundamentals.

RESEARCH

STANFORD CROWD RESEARCH | Graduate Researcher
Jan 2016 – Apr 2016 | Ithaca, NY
Collaborated with Michael Bernstein to add features to Daemo, an online crowdsourcing marketplace. Technologies used: Angular.js, Django, PostgreSQL

PROJECTS

ECG SIGNAL RECOVERY | Python
- Recovered ECG signal from noisy, incomplete data using least squares deconvolution and interpolation.
- Implemented deconvolution iteratively using Landweber algorithm.

FUN-THESIZER | JavaScript, HTML5, CSS3
- Keyboard visualizer using the Web Audio API that can play/draw sounds with varying audio filters applied.

AUDIO EFFECT IMPLEMENTATIONS | Python
- Implemented various effects (AM modulation, reverb, distortion) using PyAudio library.