Roy N. Wu

M.S. IN COMPUTER AND INFORMATION SCIENCE, DATA SCIENCE

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EDUCATION

Philadelphia, PA

University of Pennsylvania

Aug 2019 - May 2022 Aug 2019 - May 2022 Master of Science in Engineering, Computer and Information Science

Master of Science in Engineering, Data Science

- Coursework: Software Systems, Software Foundations, Analysis of Algorithms, Big Data Analytics, Machine Learning,
 Deep Learning, Artificial Intelligence, Computer Vision, Computational Linguistics, Time Series Forecasting
- Competitions: The Data Open East Coast Regional Datathon 2021 (Presented by Citadel)

New York, NY

New York University

Aug 2013 - May 2017 Aug 2013 - May 2017 Bachelor of Arts, Mathematics Bachelor of Arts, Economics

- · Coursework: Linear Algebra, Probability Theory, Statistics, Econometrics, Differential Equations, Numerical Analysis
- · Honors and Awards: Dean's List, University Honors Scholar (Founders' Day Award)

SKILLS & OTHERS

Programming

Python · Java · C/C++ · Scala

Tools/Frameworks

SQL · MongoDB · Spring Boot · Docker · Git · PyTorch · Apache Spark · Azure Databricks · AWS · GCP

Actuarial Exams: SOA Exam P/CAS Exam 1 Languages: Mandarin Chinese Video Editing: Final Cut Pro, HitFilm

WORK EXPERIENCE

New York, NY

Twitter, Inc.

Jul 2022

Others

Incoming Software Engineer

New York, NY

Cisco Systems, Inc.

Jun 2021 - Present

Software Engineer Intern

- Architecting an end-to-end complex data conversion and data migration within a microservices infrastructure using Java,
 Spring Boot, and MongoDB
- Developed a back-end framework using Python that integrates with ISE REST API to allow XML imports to the Cisco ISE UI, automating a manual task that would take over 8 hours to process in under 1 minute
- · Nominated and awarded "Intern of the Month" for positive team-player attitude and outstanding performance

Chicago, IL

William Blair & Company, L.L.C.

Jan 2021 - May 2021

Data Science Intern

- Designed and built an ETL pipeline solution in Databricks with Python and Spark that extracts and stores data from Office 365 products using Microsoft Graph REST API, improving data accuracy and consistency
- Built a social network graph with Python and implemented custom centrality and community detection algorithms; used as
 the base model for in-house relationship intelligence solution

Boulder, CO

The Trade Desk, Inc.

Jun 2020 - Aug 2020

Data Science Intern

- Developed a new lookalike modeling feature with Spark and Scala in AWS; this long-awaited function allowed users to customize inputs to the ad campaign optimization algorithm
- Analyzed 10⁸+ rows of unexplored ad group data in Vertica SQL and prototyped a custom multi-target linear regression
 model with Python to predict various KPIs, which launched company-wide and increased ad group performance by 74%

New York, NY

Vitech Systems Group, Inc.

Jun 2018 - Jul 2019 Jun 2017 - Jun 2018 Solutions Analyst

Associate Solutions Analyst

- Collaborated with tech leads to design extensive workflow processes and write new software design documents, advanced functional specifications, and enhancement contracts
- Self taught PL/SQL and worked with engineers to write and maintain SQL scripts for extracting reoccurring test cases, cutting down regression testing time by 25%

New York, NY

Haver Analytics, Inc.

Sep 2016 - May 2017

Economic Research Intern

 Compiled, managed, and quality assured databases covering macroeconomic indicators of Asia-Pacific markets and automated the extraction and formatting of data with DOS

SELECT PROJECTS

Nov 2021 - Dec 2021

PennCloud - Distributed Cloud Platform

• Built a small cloud platform in C++ that supports a webmail service and storage service, and stores all user data in a distributed key-value store

Jan 2020 - May 2020

Automatic News Headlines Generator [paper] [code] [blog]

• Trained a Seq2Seq network in Pytorch on 200,000 news articles to generate summary headlines