Roy N. **Wu**

SOFTWARE ENGINEER

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EXPERIENCE

New York, NY *Jul 2022*	**Twitter, Inc.** *Incoming Software Engineer*

New York, NY *Jun 2021 - May 2022*	**Cisco Systems, Inc.** *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 *Jan 2021 - May 2021*	**William Blair & Company, LLC.** *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 *Jun 2020 - Aug 2020*	**The Trade Desk, Inc.** *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 10^8+ 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 *Jun 2018 - Jul 2019* *Jun 2017 - Jun 2018*	**Vitech Systems Group, Inc.** *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 *Sep 2016 - May 2017*	**Haver Analytics, Inc.** *Economic Research Assistant*

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

EDUCATION

Philadelphia, PA *Aug 2019 - May 2022* *Aug 2019 - May 2022*	**University of Pennsylvania** *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

New York, NY *Aug 2013 - May 2017* *Aug 2013 - May 2017*	**New York University** *Bachelor of Arts, Mathematics* *Bachelor of Arts, Economics*

- **Honors:** Dean's List (2015, 2016)

ACHIEVEMENTS

2022	**Terminal - East Coast Regional Spring 2022:** Selected to compete in AI game competition presented by Citadel LLC
2021	**The Data Open - East Coast Regional Fall 2021:** Selected to compete in datathon competition presented by Citadel LLC
2017	**University Honors Scholar + NYU Founders' Day Award:** Graduated as a top-ranking Baccalaureate candidate
2016	**SOA Exam P: Probability/CAS Exam 1:** Passed

SKILLS

Programming	Python · Java · C/C++ · Scala
Tools/Frameworks	SQL · MongoDB · Spring Boot · Docker · Git · PyTorch · Apache Spark · Azure Databricks · AWS · GCP
Languages	English (Native) · Mandarin Chinese (Fluent)