

Roy N. Wu

M.S.E. IN DATA SCIENCE @ UNIVERSITY OF PENNSYLVANIA

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EDUCATION

Philadelphia, PA <i>Expected May 2021</i>	University of Pennsylvania MASTER OF SCIENCE IN ENGINEERING IN DATA SCIENCE, CONCENTRATION IN COMPUTER VISION <ul style="list-style-type: none">Courses: Algorithms, Big Data, Machine Learning, Deep Learning, Computer Vision, Artificial IntelligenceLeadership: Data Science General Assembly, Penn Data Science Group Board (Partnership Team)
New York, NY <i>Aug 2013 - May 2017</i>	New York University BACHELOR OF ARTS IN MATHEMATICS AND ECONOMICS <ul style="list-style-type: none">Honors: Dean's List, University Honors Scholar (Founders' Day Award)

EXPERIENCE

Boulder, CO <i>Jun 2020 - Aug 2020</i>	The Trade Desk DATA SCIENCE INTERN - PERFORMANCE AUTOMATION TEAM <ul style="list-style-type: none">Worked with engineers to productionalize and scale advertising campaign optimization algorithmsDeveloped a new algorithm that supports lookalike modeling for a custom optimization feature that allows users to include multiple conversion pixels [Spark-Scala] [SQL] [AWS (EMR, S3)]Owned the design and implementation of a new predictive model for the AI recommendation tool; increased ad group performance by 45% and reduced error by 58% on average across all KPI goals [Python] [SQL]
New York, NY <i>Jun 2018 - Jul 2019</i> <i>Jun 2017 - May 2018</i>	Vitech Systems Group SOLUTIONS ANALYST ASSOCIATE SOLUTIONS ANALYST <ul style="list-style-type: none">Served as main liaison between engineering team and clients on agile-based software development projectsManaged server and client databases for performing data analysis and resolving data issues [SQL]Collaborated with tech leads to design extensive workflow processes and write new software design documents, advanced functional specifications, and enhancement contractsDelivered optimal software solutions via in-depth quality assurance of modifications and defect fixesMentored new hires and led training seminars covering domain knowledge and best industry practices
New York, NY <i>Sep 2016 - May 2017</i>	Haver Analytics ECONOMIC RESEARCH INTERN <ul style="list-style-type: none">Compiled, managed, and quality-assured databases covering macroeconomic indicators of Asia-Pacific markets and delivered data upon each release to clients [DOS]Performed statistical analysis on time series data to provide insights into historical market trendsAdded new time series data to server and client databases and automated data extraction/formatting

PROJECTS (MORE > <https://github.com/roynwu>)

Academic Research <i>Jan 2020 - May 2020</i>	Headline Writer: Abstractive Text Summarization with Attention and Pointer-Generator Network HENGLIN WU, RUILIN ZHAO, Roy Wu , CHENYUAN LI [paper] [code] [blog] [youtube] <ul style="list-style-type: none">Developed an advanced Seq2Seq model that automates generation of news article summary headlinesAchieved BLEU score of 0.075, outperforming main reference paper from 2015 by 0.065
Academic Research <i>Jan 2020 - May 2020</i>	Artificial Anime Character Design: An Application of Generative Adversarial Networks (GANs) Roy Wu , RILEY XU, TIANHAO LU [paper] [code] [blog] <ul style="list-style-type: none">Built various GANs with improved training techniques to create artificial face designs of anime charactersAchieved FID scores of 64.45 and 44.70 for DCGAN and StyleGAN implementations respectively

SKILLS

Programming	Python · SQL · Scala · Java
ML/DL Libraries	PyTorch · Scikit-Learn · NumPy · Pandas · Matplotlib
Technologies	Apache Spark · AWS · Git · L ^A T _E X
Others	Actuarial Exams: SOA Exam P/CAS Exam 1 · Languages: Chinese · Video: Final Cut Pro, HitFilm