

# Joseph Xu | CS @ PRINCETON

+1 (626) 592 3088   @ jx6@princeton.edu   Princeton, NJ   linkedin.com/in/joseph-xu   github.com/josephxu1234

## EDUCATION

|   |                   |
|---|-------------------|
| <b>PRINCETON UNIVERSITY, COMPUTER SCIENCE BSE   GPA 3.858</b>   | EXPECTED MAY 2024 |
| <ul style="list-style-type: none"><li>&gt; <b>Technical Coursework</b> Distributed Systems, Advanced Programming Techniques, Machine Learning, Computational Reasoning, Systems Programming, Algorithms and Data Structures</li><li>&gt; <b>Mathematical Coursework</b> Probability and Stochastic Systems, Single Variable Analysis, Combinatorics, Linear Algebra, Multivariable Calculus</li></ul> |                   |
| <b>TROY HIGH SCHOOL, TROY TECH PROGRAM VALEDICTORIAN   GPA 4.0</b>  | MAY 2020          |

## SKILLS & INTERESTS

|                          |   |
|--------------------------|---|
| <b>Languages</b>         | Python, Java, Golang, SQL, C  |
| <b>Technologies</b>      | Machine Learning (sklearn, xgboost, pandas, numpy), AWS (Athena, EC2), Full Stack Development and Deployment (React, SpringBoot, REST APIs, Docker, AWS), Linux Server Security |
| <b>Interests/Hobbies</b> | Cooking, Piano, Reading   |

## EXPERIENCES

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|--|----------------------|
| <b>DATA SCIENCE INTERN @ DMI FINANCE   NEW DELHI, INDIA</b>  | JUNE 2022 - PRESENT  |
| <i>NBFI providing personal/business/mortgage loans via partners such as Google Pay</i>   |                      |
| <ul style="list-style-type: none"><li>&gt; Built risk classification model using only bank statement transactions (&gt; 7.5mil total) to predict whether a customer would default on a loan.</li><li>&gt; Caught 71% of likely defaulters and provided loans to likely good customers 92% of the time.</li></ul>                 |                      |
| <b>DATA SCIENCE INTERN @ QUANTCAP   BOSTON, MA</b>   | DEC 2021 - JAN 2022  |
| <i>Startup aiming to outperform the stocks, options, and crypto markets</i>  |                      |
| <ul style="list-style-type: none"><li>&gt; Scraped and cleaned historical options data from IB (Interactive Brokers)</li><li>&gt; Built classification model to identify whether an option is overpriced based on volatility, with 93% precision on test data, and 83% annualized returns on backtesting.</li></ul>              |                      |
| <b>FULL STACK INTERN @ GoTRUST   IRVINE, CA</b>  | JUNE 2021 - AUG 2021 |
| <i>Cybersecurity company that provides MFA services such as 2FA through phone or security key</i>  |                      |
| <ul style="list-style-type: none"><li>&gt; Spearhead the development and deployment of a site with JWT based login to demo GoTrust's new Single Sign-On API, which drastically reduces login friction, increases security, and cuts IT costs.</li><li>&gt; Implemented additional functions to GoTrust's Admin Portal.</li></ul> |                      |

## AWARDS

|  |          |
|--|----------|
| <b>PRINCETON COSCON 5TH PLACE (OF 90 TEAMS)</b>  | OCT 2021 |
| <ul style="list-style-type: none"><li>&gt; Solved algorithmic, machine learning, and systems programming challenges.</li></ul>                     |          |
| <b>CSAW RED CAPTURE THE FLAG WESTERN REGION 2ND PLACE, NATIONAL FINALIST)</b>  | NOV 2019 |
| <ul style="list-style-type: none"><li>&gt; Solved cryptography, reverse engineering, web, and misc challenges in CTF competition by NYU.</li></ul> |          |
| <b>CYBERPATRIOT NATIONAL 1ST PLACE (OF 6700 TEAMS)</b>   | NOV 2019 |
| <ul style="list-style-type: none"><li>&gt; Patched security vulnerabilities and defended against a professional team of hackers.</li></ul>         |          |

## PROJECTS

|  |      |
|--|------|
| <b>RAFT</b> <span>Golang</span>  | 2022 |
| <ul style="list-style-type: none"><li>&gt; Distributed strongly consistent consensus protocol used to get systems to agree on logs</li></ul> |      |
| <b>SEAM CARVER</b> <span>Java</span> <span>Dynamic Programming</span>  | 2021 |
| <ul style="list-style-type: none"><li>&gt; Uses dynamic programming to achieve content-aware image resizing.</li></ul>                       |      |
| <b>RNN SENTIMENT CLASSIFIER</b> <span>Python</span> <span>Numpy</span> <span>Gradient Descent</span>   | 2020 |
| <ul style="list-style-type: none"><li>&gt; Classifies simple sentences with 90%+ accuracy.</li></ul>   |      |