# Jefferson Xu

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## EDUCATION

**Northwestern University** | Bachelor of Arts in Computer Science and Minor in Economics       Expected June. 2023
- GPA: 3.909/4.0
- Relevant Courses: Data Structures & Algorithms, Intro to Computer Systems, Intro to AI, Linear Algebra, Multivariable Integral Calculus, and Discrete Math
- Awards: Capital One Software Engineering Summit Participant (1/60 chosen from 500 applicants), Semifinalists for VentureCat (Northwestern's annual startup competition)

## EXPERIENCE

**Software Developer Engineer Intern**                                                        Jun. 2021 - current
Amazon.com (AWS Kumo) | Seattle, WA
- Improved search rankings for tickets by adding metrics to existing API using React.js/Java with Enzyme/JUnit testing

**Software Developer**                                                                        Nov. 2020 - May 2021
Bizi | Evanston, IL - https://staybizi.com/
- Worked with a team of five to develop web app displaying 50+ local businesses for socially conscious consumers
- Led front-end development converting Figma mockups to live components using React.js, Amplify, AWS DynamoDB/S3

**Undergraduate Research Assistant**                                                        April. 2020 - August 2020
System Software & Security Lab at Rutgers University | New Brunswick, NJ
- Researched the usage of the Vapnik–Chervonenkis (VC) dimension as a proper metric for testing Neural Networks
- Conceptualized, trained, and tested my own experiments and models with PyTorch using the CIFAR10 dataset
- Generated polynomial regression tests on data collected with NumPy, uncovering a new correlation between a model's accuracy and its VC bound
- Effectively presented my results to Ph.D. students and research professors over a virtual conference and weekly meetings

**Web Development Intern**                                                                    Jun. 2018 - May. 2019
BlackLapel | New York, NY
- Implemented a universal content management system and an XML sitemap generator to improve company's SEO
- Streamlined unit and integration tests using Selenium WebDriver and Node.js to allow for test automation
- Refactored API endpoints in PHP and wrote Neo4j queries to be compatible with REST API, maintaining legacy code
- Reconfigured the main page to be ADA compliant using Ember.js and developed microservices using Docker containers

## PROJECTS

**TriviaSearcher** - https://github.com/jeffersonxu/trivia_searcher                                   Dec. 2019
- Created web application that filters trivia questions from the jService API as well as a Jeopardy board simulation

**Biological Network Visualization**                                                          Sep. 2018 - Jun. 2019
Icahn School of Medicine at Mount Sinai | New York, NY
- Developed tools for mentors Dr. Selim Kalayci and Dr. Zeynep Gümüş to better analyze biomolecular data
- Utilized the Three.js library to add more 3D features like arrowheads, shapes, and the ability to toggle visibility attribute
- Changed network structure to graph to improve efficiency and runtime when searching for unique node

**SeniorMania** - https://github.com/jeffersonxu/SeniorMania2.0                                Oct. 2018 - Dec. 2018
Bergen County Academies | Hackensack, NJ
- Senior Mania is a list of challenges for each senior class where groups compete with one another
- Built web application solo from start to finish using React.js and Firebase to store and display each user's data
- 16 teams registered with over 150 students participating, highest number of students in school history

## SKILLS

Languages: Java | Python | Javascript | HTML | CSS

Technologies: Git | Firebase | mySQL | Node.JS | jQuery