

# Jefferson Xu

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## EXPERIENCE

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- Amazon, NY** Sep 2023 - Present  
*Software Developer Engineer (P13N, Product Graph)*
- Amazon, NY** Jun 2022 - Sep 2022  
*Software Developer Engineer Intern (P13N, Product Graph)*
- Researched and clearly defined signals for model drift by running K-S statistic tests using Pandas, NumPy, and SQL
  - Designed model drift detection workflow using AWS Step Functions, EMR Clusters, and Spark jobs
  - Wrote Spark jobs in Python that processed petabytes of product catalog data that fetched model and statistical metrics
  - Persisted drift signal metrics as JSON in S3 to be read from dashboard alerting when model retraining is needed
- Amazon, WA** Jun 2021 - Sep 2021  
*Software Developer Engineer Intern (Amazon Web Services, Kumo)*
- Designed and created internal REST API service that connected all AWS support feedback data using AWS API Gateway, DynamoDB, and Lambda
  - Improved support ticket search rankings by adding metrics to existing API workflow using React.js and Java
  - Wrote extensive integration and unit tests using Enzyme and JUnit test libraries reaching > 95% code coverage
- Bizi, IL** Nov 2020 - May 2021  
*Software Developer*
- Worked with team of five to develop web app displaying 50+ local businesses for socially conscious consumers
  - Led front-end team converting Figma mockups to components using React.js, AWS Amplify, DynamoDB, and S3
- System Software & Security Lab at Rutgers University, NJ** Apr 2020 - Aug 2020  
*Undergraduate Research Assistant*
- Researched the usage of the Vapnik–Chervonenkis (VC) dimension as a proper metric for testing Neural Networks
  - Generated polynomial regression tests using PyTorch and NumPy finding new correlation between model accuracy and its VC bound
- BlackLapel, NY** Jun 2018 - May 2019  
*Web Development Intern*
- Streamlined unit and integration tests using Selenium WebDriver and Node.js to allow for testing automation
  - Refactored existing API endpoints using PHP, Neo4j, and Docker containers to be RESTful microservices

## EDUCATION

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- Northwestern University** **GPA: 3.7/4.0**  
Bachelor of Arts in Computer Science and Minor in Economics Sep 2020 - Jun 2023
- **Relevant Courses:** Data Structures & Algorithms, Computer Systems, Intro to Networking, Software Construction, Human Computer Interface, Intro to AI, Linear Algebra, Discrete Math, Multivariable Calculus, Intro to Data Science, Machine Learning, Scalable Software Architecture, Intro to Computational Linguistics
  - **Awards:** Capital One Software Engineering Summit Participant (1/60 chosen from 500 applicants), Semifinalists for VentureCat (Northwestern's annual startup competition)
- Bergen County Academies** **GPA: 3.9/4.0**  
Academy for Technology and Computer Science Sep 2015 - Jun 2019

## PROJECTS

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- Biological Network Visualization** - Icahn School of Medicine at Mount Sinai NYC
- Developed tools for mentors Dr. Selim Kalayci and Dr. Zeynep Gümüş to better analyze biomolecular data
  - Changed network structure to graph to improve efficiency and runtime when searching for unique node
- SeniorMania** - <https://github.com/jeffersonxu/SeniorMania2.0>
- Built web application solo from scratch using React.js and Firebase leading to peak of 150+ students registered

## SKILLS

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**Languages** - Java | Python | Javascript | HTML | CSS

**Technologies** - Git | React.js | AWS | mySQL