

# Xijie Guo

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## EDUCATION

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### Mount Holyoke College

*B.A. in Computer Science, Magna Cum Laude; GPA: 3.83*

South Hadley, MA

*Aug. 2015 – May 2019*

### Columbia University

*Visiting Undergraduate Student*

New York City, NY

*Jan. 2018 – Dec. 2018*

## COURSEWORK

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**CS:** Data Structures, Algorithms, Applications of Data Management(Database), Operating Systems, Machine Learning, Artificial Intelligence, Probabilistic Graphical Models, Data Mining, Programming Languages

**Math/Stats:** Calculus, Discrete Math, Linear Algebra, Mathematical Statistics, Probability Theory

## PROFESSIONAL EXPERIENCE

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### University of California, Berkeley, Information Security Office

*IAM Application Developer*

Oct. 2022 – Present

*Berkeley, CA (Remote)*

- Serve as the subject matter expert for the Campus Directory Update tool and an application built on Grails framework managing the lifecycle of 17,000+ Special Purpose Accounts.
- Design and develop an identity management platform using Groovy, Grails, Spring Boot, PostgreSQL, ActiveMQ, LDAP, and Vue, managing over 1.3 million identity records for campus-wide users.
- Independently led development of the Special Purpose Account application, migrating the app from Grails 2 to Grails 6 and from Bamboo to GitHub Actions and implementing the display name update feature.

### PayPal Holdings, Inc.

*Software Engineer*

Nov. 2019 – Oct. 2022

*San Jose, CA*

- Developed 10+ microservices and 20+ REST APIs on the compliance and customer verification platform using Java, Spring framework, Oracle, and IBM Operational Decision Manager, optimizing customer data collection, verification, and compliance decision-making processes for over 400 million users.
- Led a functional test migration initiative, mentoring 3 new hires to enhance the new functional test framework and migrate 300+ test cases, reducing functional test execution time from 4 hours to 1 hour.
- Triaged, troubleshooted, and implemented fixes for 30+ production issues during live support rotations.

### Google Applied Machine Learning Intensive Summer Program

*AMLI Fellow*

May 2019 – Aug. 2019

*Claremont, CA*

- Selected as one of the top 2% of applicants for this highly competitive 10-week, 450-hour ML program.
- Analyzed, transformed, and visualized more than 20 datasets and conducted 6 ML projects in Python using NumPy, pandas, Scikit-learn, Tensorflow, and Matplotlib.

### MassDiGI SIP

*Game Development Intern - Lead Technology Programmer*

May 2018 – Aug. 2018

*Worcester, MA*

- Created a cross-platform 2D mobile game 'Spell Strike' using Unity and C# from scratch, launched in 2019 on the App Store and Google Play. Trailer: <https://www.youtube.com/watch?v=mDI-pZZGE6U>.

## RESEARCH EXPERIENCE

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### University of Rostock via DAAD RISE Program

*Research Intern*

May 2017 – Aug. 2017

*Rostock, Germany*

- Designed and implemented a programming abstraction (API) in Java to mitigate runtime uncertainties in ubiquitous environments and support developers in managing large-scale device systems.
- Analyzed two publications and implemented, tested, and debugged code consisting of 50 classes and interfaces using Java reflection, dynamic proxies, and publish-subscribe pattern.

## TEACHING AND MENTORING EXPERIENCE

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- Teaching Assistant, Advanced Object-Oriented Programming Course** Sep. 2017 – Dec. 2017  
*Mount Holyoke College, Computer Science Department* *South Hadley, MA*
- Supported 20+ students with 10 labs and 7 assignments by hosting weekly office hours.
- MaGE Peer Mentor, Intro to Java Programming & Problem Solving Course** Jan. 2017 – May 2017  
*Mount Holyoke College, Computer Science Department* *South Hadley, MA*
- Led weekly learning modules and supported 20+ students with lab assignments. Conducted code reviews and provided individualized feedback for assignments to 7 students in weekly 1:1 meetings.

## PROJECTS

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- EatLike** | Capstone group project from Google Applied Machine Learning Summer Program
- Built a recommendation engine using Python and Flask Framework that ranks restaurants by topic similarity to a specified query restaurant and displays the top positive and negative reviews.  
Demo: <https://drive.google.com/file/d/1suO1hKgpdsGHqMsFcTFRJn7XdAyxTbIb/view?usp=sharing>
  - Preprocessed a 9 GB unzipped Yelp dataset using BigQuery and NLTK library and applied LDA, HDP, and LSI topic models from Gensim to extract topics from restaurants.
  - Conducted sentiment classification on over 10,000 restaurant reviews, achieving 87% precision, 96% recall, and 89% accuracy on test data.

## TECHNICAL SKILLS

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**Languages:** Java, Python, Groovy, C/C++, C#, SQL, JavaScript, TypeScript, HTML/CSS  
**Frameworks:** Spring Boot, Spring Integration, Spring Security, Grails, JUnit, TestNG, Mockito, Spock, Hibernate, Vue  
**Libraries:** Log4j, Jackson, Apache Commons, NumPy, pandas, Scikit-learn, Tensorflow, Matplotlib  
**Other Technologies:** REST API, CI/CD, PostgreSQL, Oracle, LDAP, Hadoop, Docker, Tomcat, Unix/Linux, GCP

## HONORS AND AWARDS

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**Chancellor's Outstanding Staff Awards for GRLN Project**, University of California, Berkeley  
**Spot Awards for Functional Test Migration Initiative**, PayPal Holdings, Inc.