

# Caijun Qin

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**Linkedin:** <https://linkedin.com/in/cq-profile> ♦ **GitHub:** <https://github.com/Fennec2000GH>

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## EDUCATION

- Aug 2019 – May 2022 **UNIVERSITY OF FLORIDA** ♦ Gainesville, FL, USA  
**Major:** Computer Science B.S. & Statistics B.A. **Major GPA:** 3.93 / 4.00  
**Involvement:** Treasurer of ACM Chapter / Hackathoners Club / Society of Software Developers, Tech Lead of Open-Source Club / Google Developer Student Club, Webmaster of Software Engineering Club  
**Relevant Coursework:** Software Engineering, Data Structures and Algorithms, Machine Learning, Performant Programming in Python, Competitive Programming, Principles of Programming Language, Data Science, Programming with Data in R, Statistical Learning
- Aug 2018 – May 2019 **FLORIDA STATE UNIVERSITY** ♦ Tallahassee, FL, USA  
**Major:** Computer Science B.S. **Major GPA:** 4.00 / 4.00  
**Involvement:** Treasurer of ACM Chapter  
**Relevant Coursework:** Intro Programming I (C++), OO Programming, Linear Algebra, Calculus III

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## RESEARCH INTERESTS

Machine Learning, Big Data Analytics, Graph Theory, Network Algorithms, Optimization

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## RESEARCH EXPERIENCE

- Jun 2021 – Present **Using AI to Trace the History of Race and Inequality**  
*Undergraduate Research Assistant* ♦ *Department of Classics, College of Liberal Arts & Sciences, University of Florida*  
*Advisor: Eleni Bozia*  
Engineering NLP pipeline to clean, translate, and index Latin and Greek texts for querying  
Leads team of students to webscrape XML files and extract raw text sections from classical literature  
Leveraging high performance computing and Apache Spark to processes tasks on corpora in parallel
- Jun 2021 – Aug 2021 **Research Experience for Undergraduates at UNT**  
*REU Recipient* ♦ *Department of Information Science, College of Information, University of North Texas*  
*Advisor: Junhua Ding*  
Quantitatively evaluated traditional machine against deep learning algorithms on legal text classification  
Assessed BERT transfer learning using Tensorflow/Keras and HuggingFace libraries  
First author of research paper accepted to the [JURISIN 2021](#) workshop
- Mar 2021 – Present **Theoretical Modeling of Dynamic Vegetation in Agricultural Terrains for Active Passive Microwave Retrieval of Soil and Crop Parameters**  
*Undergraduate Research Assistant* ♦ *Institute of Food and Agricultural Sciences, University of Florida*  
*Advisor: Jasmeet Judge*  
Developing functional-structural plant model (FSPM) in Blender and SpaceClaim to simulate crops at different growth stages
- May 2020 – April 2021 **Predictive Sampling Method for Spread Models in Networks**  
*Undergraduate Researcher* ♦ *University Scholars program, University of Florida*  
*Advisor: Peter Dobbins*  
Developed new sampling method for large networks based on quota sampling of high-degree nodes  
First author of research paper published to the [UF Journal of Undergraduate Research](#)
- Jan 2019 – May 2019 **Cost Minimization and Optimization of Criteria-based Matchings**  
*Honors Credit Project (3 credits)* ♦ *University Honors Program, Florida State University*  
*Advisor: Peixiang Zhao*  
Implemented Hungarian Algorithm in C++ to optimally choose pair from bipartite graph representing costs  
Designed comparable algorithm but optimally chooses pair based on multiple positive attribute values

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## PROJECT EXPERIENCE

- Jan 2021 – Present **List of Hackathons**  
*Participant* ♦ *Organizer Varies*  
Frequently partake in open-source project competitions (hackathons) hosted by various institutions and organizations  
Detailed list: <https://github.com/Fennec2000GH/Hackathon-Repository-Hub/blob/main/README.md>

May 2020 – Aug 2020	<b>OCR Note-taking Application</b> <i>Backend Engineer ♦ Performant Programming Course, University of Florida</i> Integrated machine learning and database functionalities for optical character recognition (OCR) <a href="#">app</a> Maintained customizable pipeline to preprocess text images with OpenCV and Pillow Experimentally optimized parameter selection and preprocessing steps to boost text prediction accuracy
Jan 2020 – Apr 2020	<b>American Sign Language Image-to-Letter Translator</b> <i>Student / Group Member ♦ Intro to Machine Learning Course, University of Florida</i> Collectively built classification system for ASL translation with supervised KNN model (~90% accuracy) Engineered pipeline that preprocesses image, trains classifier, predicts letter, and evaluates accuracy

## AWARDS & HONORS

May 2021	<b>Best Use of Datastax Astra</b> <i>RU Hacks 2021 ♦ Ryerson University, Toronto, ON, CAN</i>
Feb 2021	<b>Best Covid-19 Hack</b> <i>BrickHack 7 ♦ Rochester Institute of Technology, Rochester, NY, USA</i>
Feb 2021	<b>4<sup>th</sup> Place</b> <i>EconHacks 2021 ♦ Virtual Hackathon</i>
Jan 2021	<b>InfoTech Challenge</b> for most innovative use of a public dataset for the public good <i>SwampHacks VII ♦ University of Florida, Gainesville, FL, USA</i>
Mar 2019	<b>1<sup>st</sup> Place in Lower Division</b> <i>FSU Spring 2019 Programming Competition ♦ Florida State University, Tallahassee, FL, USA</i>
Jan 2019	<b>University Scholars Program</b> <i>Lateral Admission into Honors Program ♦ Florida State University, Tallahassee, FL, USA</i>

## FUNDING & SCHOLARSHIPS

Jun 2021	<b>NSF REU: College of Information at UNT</b> \$7000 ♦ <i>University of North Texas, Denton, TX, USA</i>
Mar 2021	<b>Gartner Group Information Technology Fund</b> \$1000 ♦ <i>University of Florida, Gainesville, FL, USA</i>
May 2020	<b>Russell and Mary Hyatt McCaughan Scholarship</b> \$1000 ♦ <i>University of Florida, Gainesville, FL, USA</i>
Feb 2020	<b>University Scholars Program Stipend</b> \$1750 ♦ <i>University of Florida, Gainesville, FL, USA</i>
May 2018	<b>University Freshman Scholarship</b> \$1200 / Semester ♦ <i>Florida State University, Tallahassee, FL, USA</i>

## QUALIFICATIONS

Apr 2021	<b>MATLAB Machine Learning Onramp</b>
Apr 2021	<b>MATLAB Onramp</b>
Jul 2020	<b>M001: MongoDB Basics</b>
May 2015	<b>Microsoft Office Specialist: Word 2013</b>
May 2015	<b>Microsoft Office Specialist: Excel 2013</b>
May 2015	<b>Microsoft Office Specialist: PowerPoint 2013</b>

## PROFESSIONAL SKILLS

<b>Languages</b>	English, Mandarin Chinese
<b>Programming Languages</b>	Python, C++, Java, Julia, R, Rust, C#, MATLAB, Solidity, Go, JavaScript
<b>Markup Languages</b>	HTML, CSS, XML, YAML
<b>Databases</b>	MySQL, SQLite, CockroachDB, MongoDB, Cloud Firestore
<b>Frameworks &amp; Tools</b>	Apache Spark, Node.js, React, Angular