

# Bailey A. Tincher

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## Education:

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**University of Illinois at Urbana-Champaign** 3.73 / 4.0 GPA  
Aug. 2017 - May 2021

- Bachelor of Science in Computer Science
- Minor in Quantum Physics
- **Relevant Courses:** Artificial Intelligence, Data Structures, Web Programming, Algorithms, Systems Programming

## Skills:

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- **Advanced:** Node.js, Python, AWS Serverless, REST API's, Public Speaking, Initiative
  - **Proficient:** C/C++, Java, SciPy libraries, React.js, NoSQL, Linux, Git, Least-Privileged Security
  - **Familiar:** CI/CD, Tensor Flow, OAuth 2.0, Open-Source Development
  - **Achievements:** 2nd Place Hack Illinois 2020, AWS Certified Cloud Practitioner, Eagle Scout

## Projects:

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**QUIUC - Undergraduate Quantum Computing at Illinois** <https://www.quiuc.org>  
*Founder and Co-Chair* Mar. 2019 - Present

- Started the first undergraduate quantum computing organization of over 125 students, where we teach open-source workshops, team up on research projects, and maintain a talent pipeline to academia and industry
- Designed an N-slit diffraction simulation web app for the Physics department to aid in teaching quantum mechanics

**ACM @ UIUC - Special Interest Group for AI** <https://adsa.cs.illinois.edu>  
*Co-Chair* Aug. 2019 - Present

*Advanced Workshops Committee Member* Aug. 2017 - Present

- Teaching machine learning workshops to over 50 students every week to build up undergraduates on campus with the skills to collaborate on future team projects
- Implemented a Markov Chain Tweet generator in Python that web scraped Tweets and accepted a text sentiment bias

**Overheard App** Champaign, IL  
*AWS Backend Developer* Apr. 2019 - Present

- Establishing a new social media app "Overheard", offering a map-centric view of nearby activity and amusing conversation
- Architecting decoupled, RESTful micro-services with the Serverless Framework, Lambda, Dynamo DB, and Elasti-Cache
- Monetizing our platform through targeted, non-intrusive ads that integrate natively into the app's map as posts

## Work Experience:

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**Citadel** Chicago, IL  
*Software Engineering Intern - Full Time* Jan. 2020 - Apr. 2020

- Created an automated machine learning model data refresh and quality assurance framework for our quantitative production trading systems
- Rewrote an internal API in Python and gRPC that's relied upon by 120+ researchers and improved its performance by 6x
- Identified my team's weakpoint in React development and took the initiative to develop out our internal user interface

**State Farm Research and Development Center** Champaign, IL  
*Software Engineering Intern - Full Time* May 2019 - Aug. 2019

- Executive's Choice Winner of the 2019 State Farm Hack Day across 1000+ developers company wide, leading a small team as the full stack developer on a computer vision project to improve customer data entry at the scene of an accident
- Constructed an automated, enterprise-level dashboard of 100+ AWS accounts that aggregated AWS Trusted Advisor data into an SQS queue, processed it concurrently in Lambda, and then presented it in Quick Sight
- Integrated a full stack voice app in under 12 weeks that simplified the filing process of 40k+ claims/day, pitched the concept to a corporate executive, and sought out risk management and security teams to bring it near production

**University of Illinois - Department of Computer Science** Champaign, IL  
*CS 125 Course Developer - Part Time* Jan. 2018 - May 2019

- Advancing CS education for a course of 900+ students by creating innovative tools in a start-up like environment
- Creating a lecture slide PWA in React.js with a Socket.io backend allowing collaborative editing and participation tracking