Bailey A. Tincher

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I have had experience across a variety of fields in my past few years, but am now seeking a Summer 2020 software engineering internship that hones in on my skillset in quantum computing or machine learning

Education:

University of Illinois at Urbana-Champaign 3.82 / 4.0 GPA

- Bachelors of Science in Computer Science, dual degree with Engineering Physics *Graduation Date:* May 2021
- **Relevant Courses**: Artificial Intelligence, Machine Learning, Quantum Information Processing Theory, Quantum Physics, Algorithms, Systems Programming

Achievements: AWS Certified Cloud Practicioner | Eagle Scout | Dean's List

Projects and Volunteer Involvement:

QUIUC - Undergraduate Quantum Computing at Illinois Urbana-Champaign, IL

Founder and President Mar. 2019 - Present

Skills: Leadership, Organization & Planning, Python, IBM QISKit

- Created the first undergraduate quantum computing organization, with a focus on recruiting talented students and bringing them together to eliminate the barrier of entry into the field for others through workshops and projects
- Developed a Universal Quantum Computing Simulator from scratch in Python that implemented Phase Estimation, the Quantum Fourier Transform, and Shor's Algorithm to factor integers
- Designed an N-Slit Diffraction simulation web app for the Physics department to aid in teaching quantum mechanics

Association of Data Science and Analytics (ADSA) Urbana-Champaign, IL

President Aug. 2019 - Present

Advanced Workshops Committee Member Aug. 2017 - Present

Skills: Public Speaking, Teaching & Mentoring, Machine Learning, Data Visualizations, Python, SciKit Learn

- Hosting machine learning workshops to build up undergraduates on campus with the skills to team up on future projects
- Partnering with the College of Business to host a Sports Datathon in Spring 2020 to expose athletic coaches to big data

Work Experience:

State Farm Research and Development Center - Fortune 50 Company Champaign, IL

Software Engineering Intern - Full Time May 2019 - Aug. 2019

Skills: Agile, Least-Privileged Security, Node.js, AWS: [Lambda, Dynamo, SQS, S3, Rekognition, Terraform]

- 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
- Integrated a voice app in under 12 weeks that simplified the filing process of 40k+ claims/day, pitched the concept to a corporate executive, and collaborated with risk management and security teams to bring it near production

606 App Studios Champaign, IL

AWS Backend Developer - 50/50 Partner Apr. 2019 - Present

Skills: Project Management, Node.js, CircleCI/Git, AWS/Serverless Framework: [Lambda, Dynamo, SNS, Elastic Cache]

- Establishing a new social media app "Overheard", offering a map-centric view of nearby activity and amusing conversation
- Monetizing our platform through targeted, non-intrusive ads that integrate natively into the app's map

University of Illinois - Department of Computer Science Urbana-Champaign, IL

CS 125 Course Developer - Part Time Jan. 2018 - Present

- Advancing CS education for a course of 900+ students by creating innovative tools in a start-up like environment
- Initiated a project to expand office hours to residence halls across campus to improve student and volunteer attendance

Illinois Tool Works (ITW) - Fortune 200 Company Beecher, IL

Data Analysis Contractor - Part Time During School Breaks Jan. 2018 - Present

Process Engineering Intern - Full Time May 2017 - Aug. 2018

- Worked directly with the VP/GM on a data-driven, "Front-to-Back" 100,000 square foot plant redesign leveraging Python to optimize the part picking workflow at a scale of 500,000 picks per year
- Collaborated with the product management and supply chain teams to conduct an 80/20 analysis in Python across 40,000 parts and $100M+ in sales to eliminate underutilized inventory and identify supply chain complexity