JAMES ROCKEY

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EDUCATION

University of Illinois at Urbana-Champaign — **Expected Graduation:**
Masters of Computer Science — May 2024
Bachelor of Science in Computer Science — May 2023
GPA: 3.95/4.0

Relevant Coursework:

Algorithms and Models of Computation	Competitive Algorithmic Programming	Computer Architecture	Database Systems
Data Structures	Discrete Structures	Distributed Systems	Formal Methods
Internet of Things	Machine Learning	Numerical Analysis	Numerical Methods
Probability and Statistics for Computer Science	Programming Languages and Compilers	System Programming	Software Design Studio

EXPERIENCE

Susquehanna International Group, LLP (SIG) — **June 2023 – August 2023**
Incoming Software Engineer Intern — Bala Cynwyd, PA
- Automated trading strategies for equities, ETFs, and crypto using C++.

UIUC Department of Computer Science — **August 2022 – January 2023**
Course Assistant for CS 357 - Numerical — Champaign, IL
- Assisted students on topics including scientific computing, mathematical modeling, stochastic models, approximation and optimization algorithms.
- Created homework problems/solutions using Python, hosted office hours, proctored exams.

United Airlines — **May 2022 – August 2022**
Digital Technology Intern — Chicago, IL
- Supported software engineering team tasked with transferring legacy in-house applications to AWS by building a database comparison tool in Python, creating a SVM classifier in Python to prioritize black box software tests, and writing unit tests in Angular for United's crew scheduling application.
- Led a team of interns to develop a dashboard using Splunk to display progress of onboarding new aircraft, improving handoff process by 50%, and presented our findings to the CIO and head of Digital Technology.

Quant UIUC — **January 2022 – May 2022**
Software Developer — Champaign, IL
- Developed a Twitter scraper using Python that gathers all public user data including user followers, most reposted tweets, and favorite hashtags for sentimental analysis.
- Worked on a team to create a blog publishing tool in Python to post Quant's recent updates to LinkedIn, Discord, and Notion.

Engineering Council at the University of Illinois at Urbana-Champaign — **July 2020 – June 2022**
Social Chair/Executive Board Member — Champaign, IL
- Led a team of 15 members to organize social events for students in the Grainger College of Engineering.
- Served on the Engineering Council Board and help make executive decisions for the organization.

RELEVANT PROJECTS

Resume Job Recommender (Python) — **November 2022 – December 2022**
- Utilized Random Forest Classifier and Okapi BM25 search algorithm to recommend jobs based off a user's resume.
- Created front end application for uploading resume and displaying job recommendations using Flask framework.

Brick Breaker Game (C++) — **May 2021 – June 2021**
- Utilized Cinder C++ visual library to create user interface for brick breaker game.
- Designed game engine to handle collisions, user interface for playing the game, and brick generation logic.

TECHNICAL SKILLS & AWARDS

- **Programming Languages:** C/C++, Python, Java, JavaScript, Haskell, MySQL, Go
- **Awards:** Tau Beta Pi Honor Engineering Honor Society Member (2021), Deans List (2022-2020), National Merit Finalist (2019), AP Scholar with Distinction (2019)