

Aaron Green

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Education

University of Illinois at Urbana-Champaign

M.S. Computer Science

(Expected Graduation May 2020)

B.S. Statistics and Computer Science

Cumulative GPA: 3.95. (Graduated May 2019)

Relevant Coursework: Distributed Systems, Database Systems, Text Information Systems, Artificial Intelligence, Statistics and Probability

Work Experience

Stripe, *Software Engineering Intern*

May 2019 - Present

- Created the API request log tailing feature for the Stripe CLI in Go, supported by building a real-time log pipeline using Kafka and Redis
- Implemented event triggers for the Stripe CLI in Go, enabling developers to simulate Stripe webhook events and generate test data
- Drove a key project of the initial open-source release for the Stripe CLI from conception to delivery, ensuring and maintaining buy-in from several stakeholders across multiple teams
- Served as the main point-of-contact for the legacy Stripe Metadata functionality, acting as a driver for long-term planning and technical possibility for Metadata

Jump Trading, *Software Engineering Intern*

January 2019 - May 2019

- Created a tool in C++ to efficiently collect statistics and differences between compressed data files to improve data integrity and application stability between risk platform releases
- Utilized a strong understanding of C++ data structures and memory behavior to reduce data file processing time by 86%
- Added various quality of life changes to the main risk platform

Braintree, *Software Engineering Intern*

June 2018 - August 2018

- Automated the process for billing gateway-only merchants using Ruby on Rails, processing over \$500,000 annually
- Implemented a core piece of a data pipeline by creating and scheduling spark jobs using PySpark and Airflow in Python, processing tens of millions of records a day
- Improved detail in database messages by modifying the wal2json PostgreSQL plugin in C
- Only intern to deliver a presentation to the CTO and CFO of Braintree and gave an internal product talk to over 200 people

UnitedHealth Group, *Software Development Intern*

June 2017 - August 2017

- Developed an internal web application using React.js, Flask, and MongoDB projected to save nearly \$1.1 million annually
- Utilized change data capture to stream Oracle database changes into MongoDB to better structure the data and improve query performance
- Created real-time data visualizations using Chart.js and Cytoscape.js

AARP, *Software Development Intern*

January 2017 - May 2017

- Developed a skill for Amazon Alexa to reduce isolation in the aging population using the Amazon Python SDK
- Deployed a backend tool using Flask on Amazon EC2 to enable audio encoding conversion for all Alexa skills at AARP
- Prototyped an Android application and email bot to facilitate collection of user data for the Alexa skill

Research

LiveDataLab, *Co-Founder & Lead Developer*

March 2018 - Present

- Co-founded an organization focused on building a cloud-based data science laboratory to enable data science education, research, and applications along with Professor ChengXiang Zhai and two graduate students, backed by an educational grant from Microsoft
- Managed and improved distributed systems infrastructure supporting hundreds of students in multiple computer science courses (Text Information Systems, Advanced Information Retrieval, and Image and Video Processing)
- Assumed a leadership role in onboarding and guiding several new members to the organization
- Published an academic research paper for the preliminary system: Green, A., Zhai, C. "LiveDataLab: A Cloud-Based Platform to Facilitate Hands-on Data Science Education at Scale." *ACM Learning at Scale (L@S)*, 2019.

Skills

Languages: Python, Ruby, Go, JavaScript, C++, C, Java

Web Frameworks and Libraries: Ruby on Rails, Node.js / Express.js, Django, Flask, React.js

Databases and Tools: PostgreSQL, MongoDB, Redis, Kafka, Spark, Amazon Web Services, Microsoft Azure, Git