# Aaron Green

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## Education

**University of Illinois at Urbana-Champaign**
M.S. Computer Science (Planned)                                            (Expected Graduation May 2020)
B.S. Statistics and Computer Science                         Cumulative GPA: 3.96. (Expected Graduation May 2019)
*Relevant Coursework:* System Programming, Artificial Intelligence, Computer Architecture, Data Structures, Software Design

## Work Experience

**Braintree (PayPal)**, *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

**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 real-time database changes and prevent performance loss on the source database
- 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 & Teaching

**LiveDataLab**, *Co-Founder & Developer*                                   March 2018 - Present
- Co-founded a nonprofit organization focused on building a cloud-based laboratory for data science along with Professor ChengXiang Zhai and two graduate students, backed by an educational grant from Microsoft
- See more at: http://www.livedatalab.org

**University of Illinois TIMAN Research Group**, *Undergraduate Research Assistant*          August 2017 - Present
- Collaborated with graduate students to create an information retrieval web application backed by GitLab CI and Microsoft Azure
- Created a novel dataset for query-based abstractive summarization using Wikipedia, containing over 110,000 data points

**CS 126: Software Design Studio**, *Course Assistant*                           August 2017 - May 2018
- Led a weekly code review session with six students to teach proper style, design, testing, and version control
- Collaborated with course staff members to design weekly assignments and aided in developing the cheat detection pipeline

## Projects

**LiveNote** *(Ruby on Rails, Node.js, React.js, PostgreSQL)*                   December 2017 - January 2018
- Developed a collaborative note taking web application that utilizes Node.js and websockets to broadcast real-time changes to notes across active users and is deployed on DigitalOcean

**SmartPhoto** *(Node.js, Express.js, React.js, MongoDB, Amazon S3)*               May 2017 - June 2017
- Developed an in-browser photo editor and storage service that autosaves changes to Amazon S3 and is deployed on Heroku

## Skills

**Languages**: Python, Ruby, JavaScript, C, C++, Java, HTML, CSS
**Web Frameworks and Libraries**: Ruby on Rails, Node.js / Express.js, Django, Flask, React.js
**Databases and Tools**: PostgreSQL, MongoDB, Kafka, Spark, Airflow, Amazon Web Services, Git