

# Aaron Green

Aaron.green281@gmail.com • (502) 424-3665 • [github.com/aaron09](https://github.com/aaron09) • [linkedin.com/in/aarongg09](https://www.linkedin.com/in/aarongg09)

## Education

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### 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

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### 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 data transformations for a pipeline by creating and scheduling spark jobs using PySpark and Airflow in Python
- 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

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### 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

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### 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

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**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