Aaron Green

Aaron.green281@gmail.com • (502) 424-3665 • github.com/aaron09 • linkedin.com/in/aarongg09

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
- Optimized query performance significantly by partitioning a Hive table on AWS S3 with hundreds of millions of rows and utilized partitioning to prevent data duplication during spark job runs
- 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