



# Samuel Lakes

Data Engineer

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☐ English



## BACKGROUND

### ☐ ABOUT

Samuel is originally from Loveland, Ohio. He has earned a degree in Computer Science from California Polytechnic State University. Before starting as a Data Engineer at Intuit, he interned with them for two summers beforehand where he worked on similar problems compared to his full time work. Before that, he was a full stack intern for two years at a startup called Digital Democracy located in San Luis Obispo. While his work focuses mainly in data engineering and cloud computing, his non-work interests range widely, everything from art and anthropology to hiking.

### ☐ WORK EXPERIENCE

#### **Data Engineer, Intuit**

Jan, 2019 - Aug, 2020 ☐ 1 year 7 months

As a Data Engineer designed and implemented various data pipelines and python tools to enhance the capabilities of Intuit's data platform while working closely with non-technical teams to bring new insights to data reports.

- Designed, implemented, and tested an automated ETL data pipeline to transfer commissions data between a 3rd party and Intuit's business teams using Hive, Spark, and EMR. Worked within the confines of constantly changing requirements for the on-time transformation of what had previously been an



- antiquated manual process replacing funds into a well-oiled, mistake free data pipeline and warehousing system with CI/CD; creating new opportunities for revenue and accounting for lost funds.
- Managed, developed, and implemented an auditing framework using AWS S3/EMR and Informatica to comply with CCPA standards to delete user data. Provided confidence to stakeholders for compliance with state and international regulations.
- Designed and implemented a tool to automatically evolve database schemas using the Hadoop framework; reducing time to deploy table changes from over one hour to mere minutes without operator error or mistakes.
- Collaborated with teams in Finance/HR/Sales to understand their needs and update tables/datamarts to reflect changing requirements, unlocking key insights for their projects and making new data accessible in a timely manner.
- Managed and developed a data parity tool in AWS Athena in order to compare recently ingested tables against data sources, establishing a reporting tool surrounding any ingestion issues which reduced downstream data errors for teams of stakeholders.

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### Software Engineering Intern, Intuit

May, 2018 - Aug, 2018 □ 2 months

As a Software Engineering Intern assisted with the migration from an Oracle based data engineering platform to an AWS cloud platform.

- Designed and implemented a data parity tool to assist with the migration from Oracle databases to AWS in order to efficiently handle billions of records across many tables. It is used as a fast tool that can ensure data quality and reliability during incidents.

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### Software Engineering Intern, Intuit

May, 2017 - Nov, 2017 □ 5 months

As a Software Engineering Intern implemented and tested various aspects of Intuit's real-time data pipelines.

- Developed a component of Intuit's money movement system using the Spring framework transferring over \$1 billion every month.
- Implemented a piece of the team's data pipeline using Apache Storm that enriched data in Intuit's financial systems, creating new data for downstream stakeholders.

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### Software Engineering Intern, Digital Democracy

Oct, 2015 - Jun, 2017 □ 1 year 7 months

As a Software Engineering Intern worked on various aspects of the front-end and back-end of the Digital Democracy website.

- Architected, managed, and developed a Stripe payment system in Drupal which provides users with a way to upgrade storage space, creating a revenue stream for the startup.
- Architected and managed the development of a semi-autonomous, BeautifulSoup/Selenium based testing system which reported errors with HTML elements of Digital Democracy's website to the QA team, reducing time to discover errors by several hours.
- Developed a data pipeline to handle the cleaning and enrichment of legislative hearing data for the purpose of fact-checking.



## SKILLS

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### Professional Skills

Project Management

Technical Writing

Presentations

Collaboration

Communication



## Big Data Technologies

Spark Hive/Hadoop Kafka AWS (RDS, EMR/EC2, Athena)

## Machine Learning

Numpy Pandas SciKit Learn PyTorch Jupyter

## Programming Languages

Python Java SQL C Bash LaTeX

## Other Skills

Informatica ETL CI/CD Drupal Jenkins Spring Docker Data Warehousing

## EDUCATION

### Computer Science, Bachelor of Science, California Polytechnic State University

Aug, 2013 - Jun, 2017

Computer Networks Theory and Applications of Data Mining Algorithms II Natural Language Processing  
Artificial Intelligence Operating Systems Programming Languages Introduction to Data Science  
Game Development Algorithms Software Engineering Corporate Communication Technical Writing

## VOLUNTEER WORK

### Technical Director of Competitions, Cal Poly Data Science Club

Jan, 2012 - Jan, 2013

Cal Poly's student connection to the growing field of data science through supplementary education, competition, and corporate outreach.

- Planned several internal Data Science competitions to teach machine learning techniques to newer club members.
- Used knowledge of Pandas, Jupyter, and unsupervised learning techniques to help manage teams and give direction and advice in online competitions