

# Roy Chiu

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## Education

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### University of Illinois at Urbana-Champaign

Champaign, IL

BACHELOR OF SCIENCE - MASTER OF COMPUTER SCIENCE

August 2017 - May 2021

**Relevant Coursework:** Deep Learning (IP), Database Systems (IP), Adversarial Machine Learning (IP), Artificial Intelligence, Algorithms and Models of Computation, Data Visualization, Applied Machine Learning, Text Information Systems, Data Structures, Systems Programming, Numerical Methods

## Skills

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**Languages** Python, Java, SQL, C++, HTML, CSS, JavaScript, C

**Frameworks/Tools** React, Git, Bootstrap, Flask, Databricks, Tableau, Pyspark

## Experience

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### Samsara

San Francisco, CA

SOFTWARE ENGINEER INTERN

June 2020 - August 2020

- Collaborated with over 20 people across 4 teams to design data models to combine segmented customer data into a holistic view for more proactive, personalized outreach and campaigns
- Consolidated millions of customer data points from BigQuery, Netsuite, and Salesforce into a centralized Databricks table using SQL and Pyspark
- Analyzed over 20,000 customers and their fleet operations using Tableau to detect customer trends and internal outages
- Developed a segmentation model using dimensionality reduction and clustering techniques to classify customers and predict churn

### The Climate Corporation

Seattle, WA

SOFTWARE ENGINEER INTERN

May 2019 - August 2019

- Developed a full-stack application using a Flask tile server and CommonJS with Mapbox frontend that processes satellite imagery on-demand in-browser and visualizes resulting vegetation health maps on a global scale
- Convinced team to begin replacing existing systems with new on-demand service that reduces total costs by \$100,000+ annually
- Worked with a team of 23 software engineers across 4 locations in an Agile/Scrum environment to create user-centric products

### Hack4Impact UIUC

Champaign, IL

CO-PRESIDENT | TECHNICAL LEAD | SOFTWARE ENGINEER

May 2018 - May 2020

- Managed organization of 40 people by organizing meetings, events, sponsorships, and project sourcing for semester and year-long projects
- Directed teams of 6 software engineers to develop full-stack applications from scratch by considering user stories, developing system architectures and PRDs, and ensuring production-quality code
- Developed full-stack recruitment portal with 6 technical leads to streamline application process using React/Redux/Next.js/Express/MongoDB
- Partnered with GlobalGiving's data science team to create an application that performs web scraping and data mining to discover 200+ NGOs

### OjaExpress

Chicago, IL

DATA SCIENTIST INTERN

May 2018 - August 2018

- Cooperated with 5 interns in an Agile/Scrum environment to aggregate grocery store data from 3 different APIs
- Convinced stakeholder to implement Google and Yelp API data harvesters by presenting prototypes as proof of concept
- Generated 15,000+ ethnic grocery store business data from the Yelp API for future data analysis
- Utilized Google BigQuery, PubSub, and Cloud Dataflow to consolidate 30,000+ store business data for future data analysis

## Projects

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### Augmented Reality Hand Tracking

Application that performs computer vision with C++ and OpenFrameworks to track entities with a webcam and interact with user-generated game objects.

### Riot Stats

Full-stack web application utilizing ReactJS and Python to retrieve 10,000+ matches from the Riot Games API and analyze game statistics, including player matchups and win probabilities