

MICHIGAN STATE

UNIVERSITY

Alpha Presentation

Transaction Anomaly Detection

The Capstone Experience

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From Students...
...to Professionals

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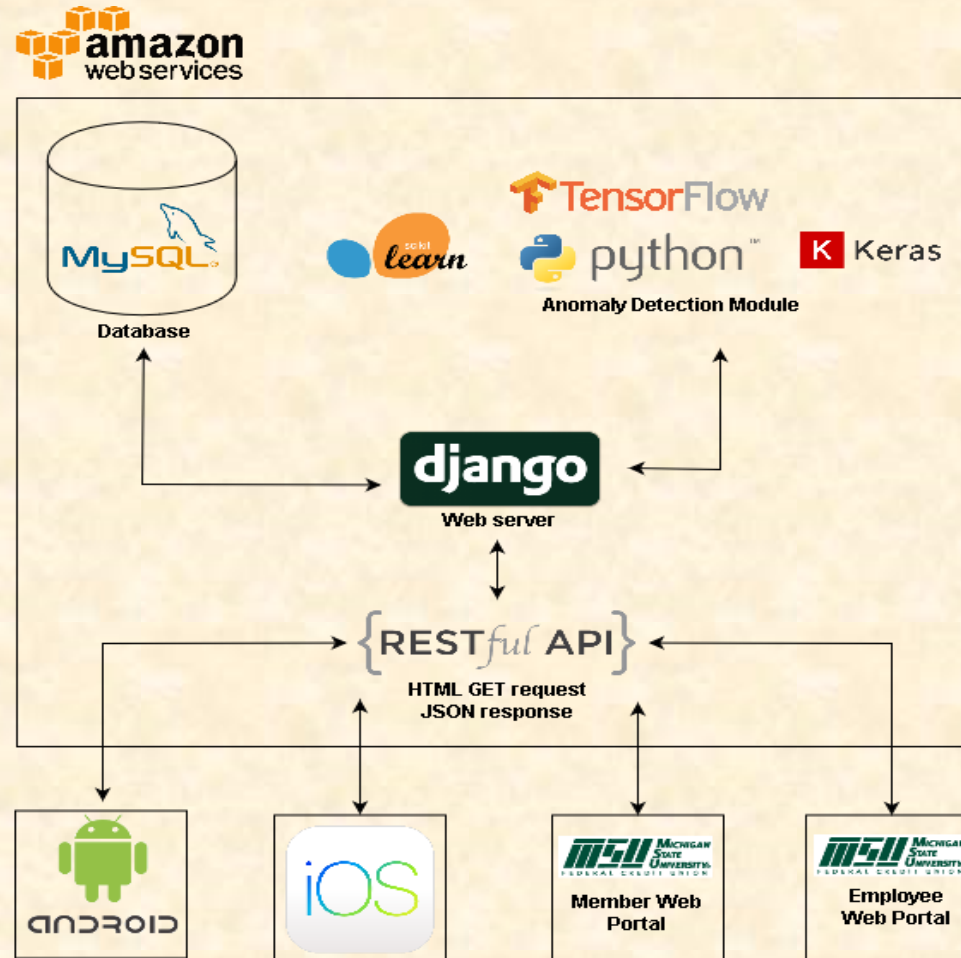
Fall 2018

Project Overview

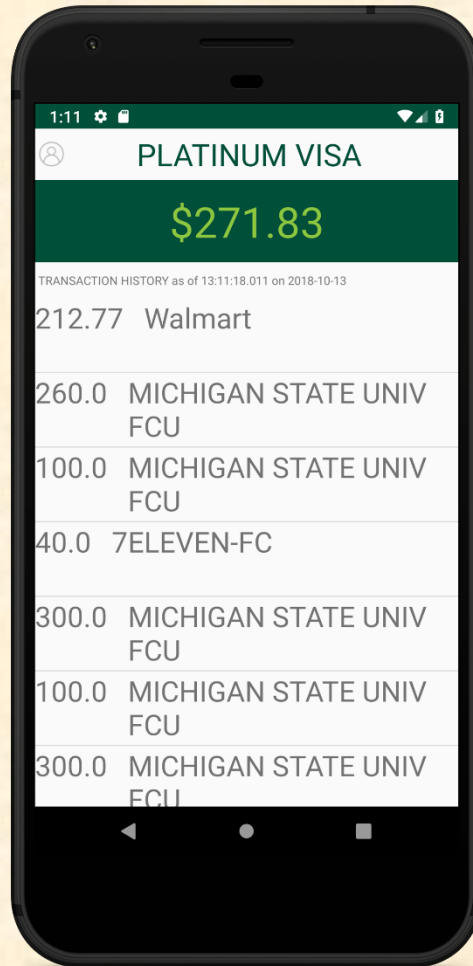
- Detect and alert users of anomalous transactions
 - Fraud / account takeover
 - Changes in recurring payments
- Provide visualization of member spending habits
- Implement anti-money laundering rules according to Bank Secrecy Act
 - Stretch goal



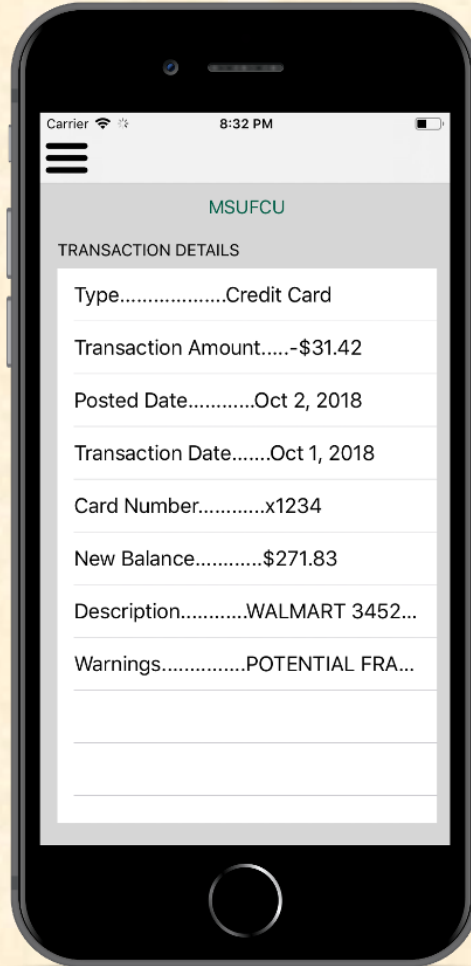
System Architecture



Android Member Account View



iOS Member Transaction View



Member Facing Web Portal

The screenshot shows a web browser window with the URL `django-env.zqqwi3vey2.us-east-1.elasticbeanstalk.com/#/`. The page header includes the MSUFCU logo and navigation links for Alerts, Manage, and Sign Out. The main content area is titled "Transaction and Anomaly Monitoring" and displays three account summaries:

- Testing (Balance: \$8,721.54)**

Date	Acceptor	State	Post Amount
1	Walmart	1	1
- Checking (Balance: \$843.29)**

Date	Acceptor	State	Post Amount
2018-04-06 00:00:00	MICHIGAN STATE UNIV FCU	MI	0
2018-04-06 00:00:00	MICHIGAN STATE UNIV FCU	MI	260
- Credit (Balance: \$2,423)**

Date	Acceptor	State	Post Amount
2018-07-04 00:00:00	WAL Wal-Mart Store 441780	KY	50
2018-09-05			

Employee Facing Web Portal

The screenshot shows a web browser window displaying an employee-facing web portal. The browser's address bar shows the URL `django-env.zqqwi3vey2.us-east-1.elasticbeanstalk.com/#/`. The page header features the MSU logo and the text "Transaction and Anomaly Monitoring". Navigation links for "Alerts", "Manage", and "Sign Out" are visible. The main content is divided into two columns: "Account Summary" and "Admin".

Account Summary

Testing (Balance: \$8,721.54)

Date	Acceptor	State	Post Amount
1	Walmart	1	1

Checking (Balance: \$843.29)

Date	Acceptor	State	Post Amount
2018-04-06 00:00:00	MICHIGAN STATE UNIV FCU	MI	0
2018-04-06 00:00:00	MICHIGAN STATE UNIV FCU	MI	260

Credit (Balance: \$2,423)

Date	Acceptor	State	Post Amount
2018-07-04 00:00:00	WAL Wal-Mart Store 441780	KY	50
2018-09-05			

Admin

Links

- [Member list](#)
- [Admin settings](#)



What's left to do?

- Refine rules for anomaly detection
- Finish building Android and iOS front end
- Add functionality to employee facing web portal
- Implement sample alert system



Questions?

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