

MICHIGAN STATE

UNIVERSITY

Project Plan Presentation

P2P Lending Platform

The Capstone Experience

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*From Students...
...to Professionals*

Functional Specifications

- Our web app looks to connect Ally Bank clients with one another to eliminate the need of a middleman
- Grants the ability for clients to lend and gain financial capital
- Allows clients to borrow for lower interest fees than they would from a bank
- Allows the client that borrows to combine loan offers from other clients

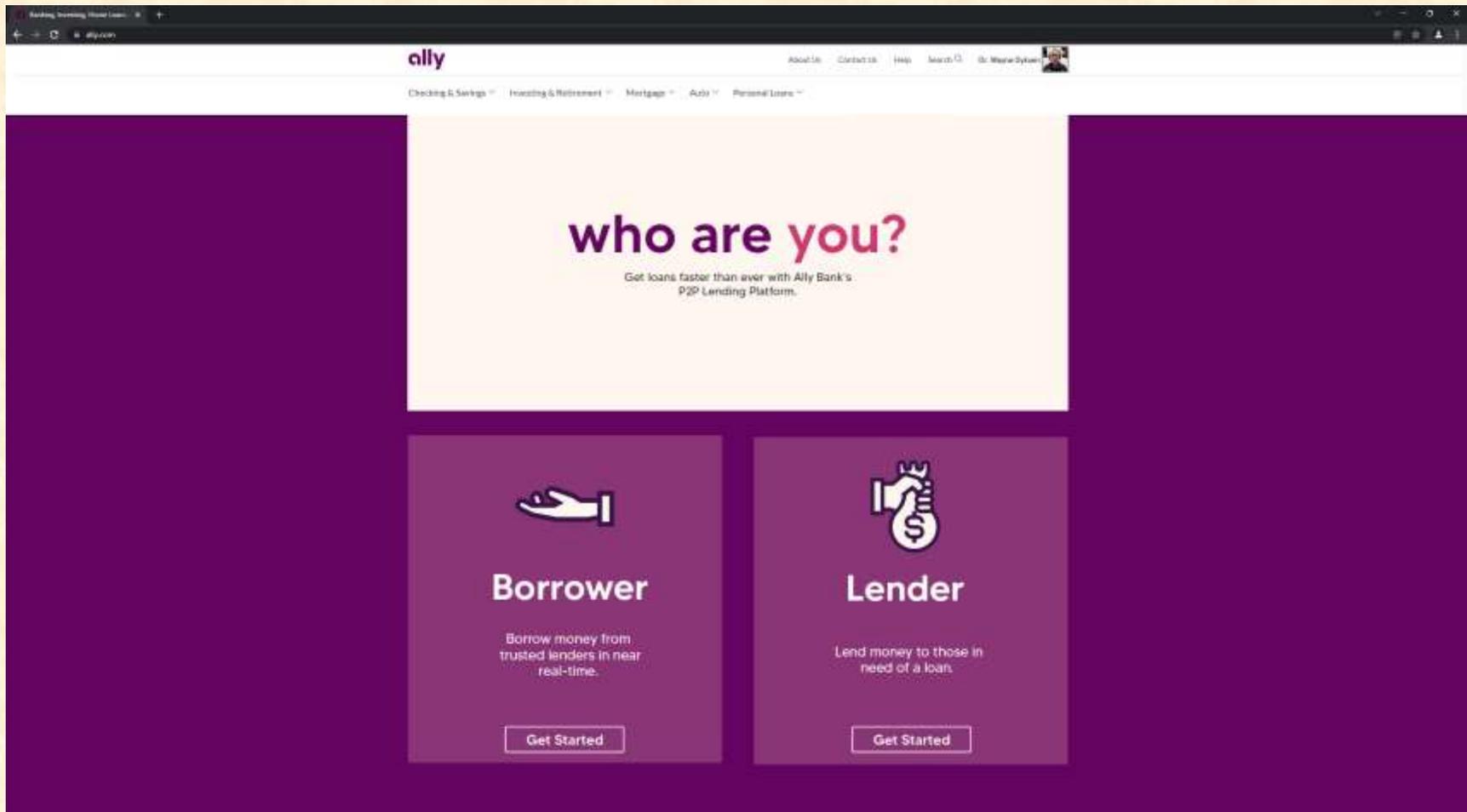


Design Specifications

- User is directed to main page where they identify themselves as either a borrower or lender
- Borrowers can view active loans, open applications, and proposals from other lenders
 - Can request a new loan
- Lenders can view active loans and new loan requests from borrowers
 - Can submit a proposal based on loan request



Screen Mockup: Main Screen



Screen Mockup: Borrower

ally About Us Contact Us Help Search Dr. Wayne Dyksen

Checking & Savings Investing & Retirement Mortgage Auto Personal Loans

Hi Dr. Wayne Dyksen!

Here you'll be able to see your active loans, open loan applications, loan proposals, and apply for new loans.

[Apply For a Loan](#)

Active Loans

Amount	Status
\$10,000	Paid
\$2,000	Open-Active

Open Applications

Amount	Date
\$1,000	1/25/2022

Loan Proposals

Lender	Amount	Duration	Rate	
John Doe	\$20,000	36 mths	5%	Accept/Reject
Jane Doe	\$5,000	24 mths	10%	Accept/Reject



Screen Mockup: Apply For a Loan

ally

About Us Contact Us Help Search My Name Sybil

Checking & Savings Investing & Retirement Mortgage Auto Personal Loans

Please Fill Out the Details of Your Loan.

Enter your loan amount, current address, SSN, and other relevant information.

Loan Details

Amount: \$123,123

Address: 123 Sparty Ave East Lansing Michigan 48823

SSN: 123-12-1234

Income: \$123,123.12

Employment: Michigan State University

Marriage Status: Single

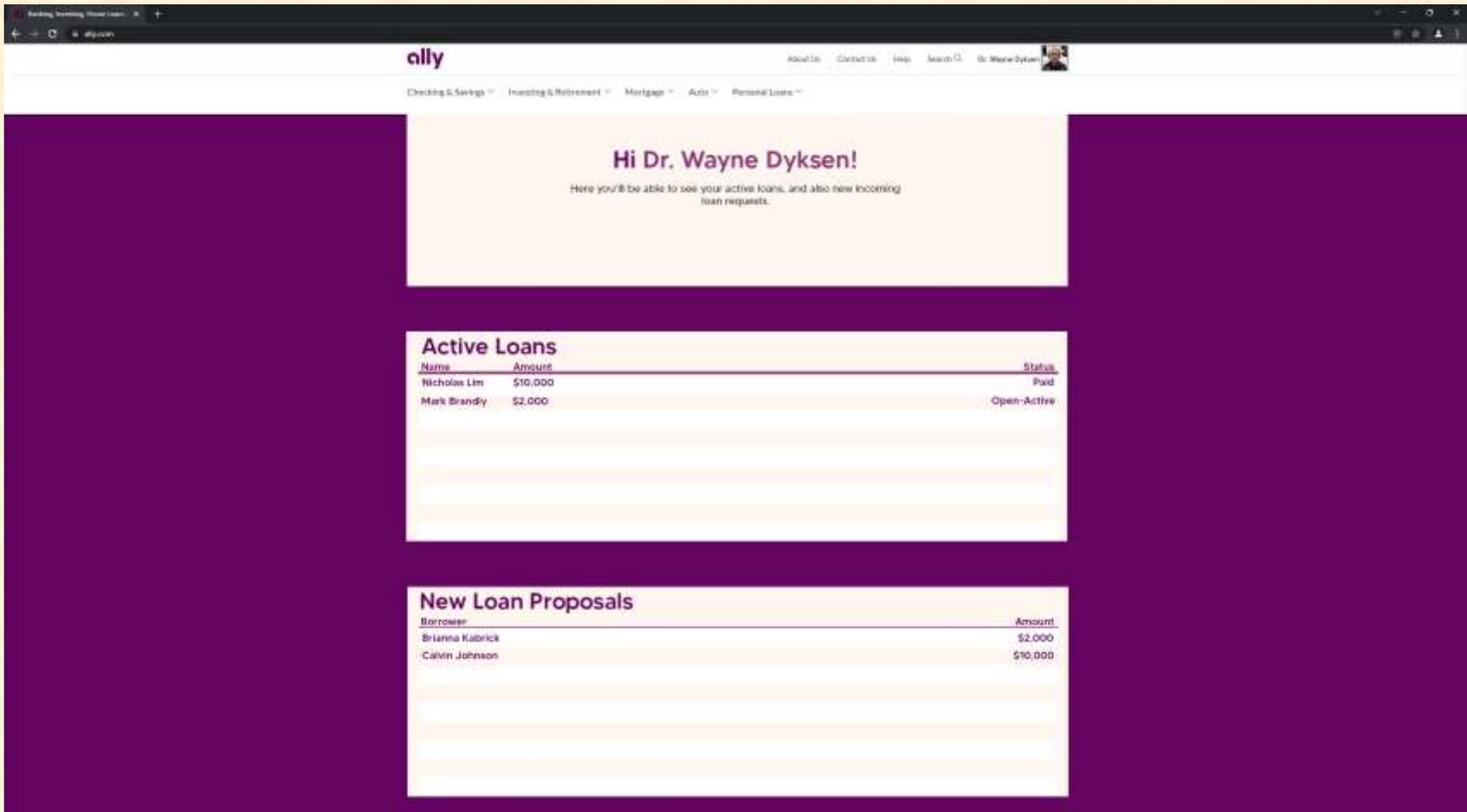
Credit Score: 639

Bank Account Number: 000123456789

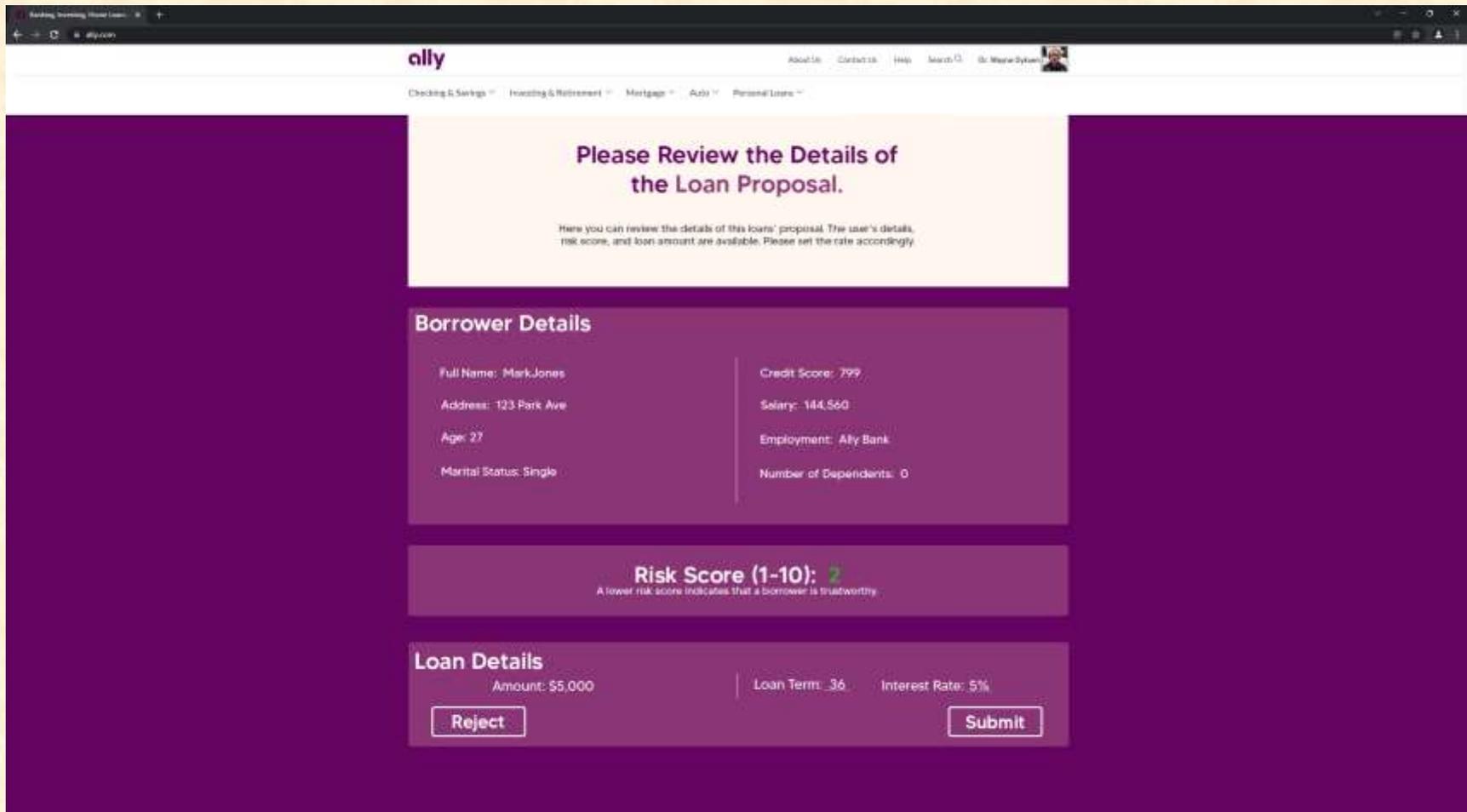
Back Submit



Screen Mockup: Lender



Screen Mockup: Review a Loan

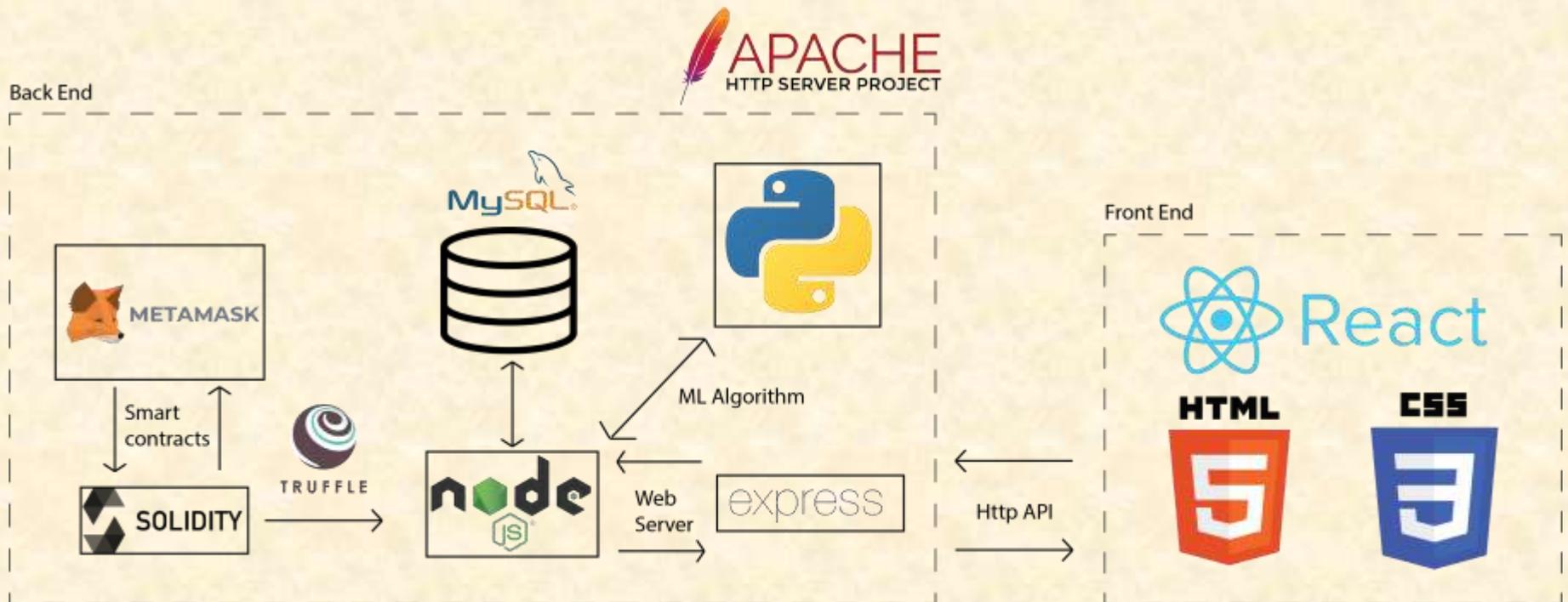


Technical Specifications

- Ethereum Blockchain
- NodeJS
- ReactJS
- Machine Learning



System Architecture



System Components

- Hardware Platforms
 - IMAC, Smart Phone

- Software Platforms / Technologies
 - VS Code, React
 - Ethereum private blockchain network
 - Lambda, S3, Api Gateway
 - Truffle



Risks

- Risk 1
 - Wallets could be completely separate from a bank account
 - Consider an external wallet handler
- Risk 2
 - Clients may not pay back their loans
 - Will need to incentivize clients by implementing a risk score, and possibly penalize the client's credit score
- Risk 3
 - Clients who want to borrow anonymously are not trustworthy
 - Use client's wallet transaction history to assign risk scores to borrowers
- Risk 4
 - All information on the blockchain could technically be accessed, including confidential information like a social security number
 - Will look into an off-chain database to hold important information off the chain



Questions?

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