USC IMSC

A NATIONAL SCIENCE FOUNDATION ENGINEERING RESEARCH CENTER

FINANCIAL SIMULATOR

A Collaboration Between IMSC, Marshall School of Business, and the USC Credit Union

application research projects

Collaboration Team

Project Lead:	**Victor LaCour,** ***Creative Producer, IMSC***
Faculty Mentors/ Application Conception:	**Dr. Ulrich Newman,** ***IMSC Director*** **Dr. J. Kimball Dietrich,** ***Assoc. Prof Marshall School of Business,*** **Gary J. Perez,** ***President, CEO USC Credit Union***
Business Developer:	**Gregory R. Day,** ***VP of Human Res., USC Credit Union***
Lead Programmer:	**Dhruv Pandey,** ***Masters Student, IMSC***
Assistant Programmer:	**Tracy Wilson,** ***Undergraduate,Computer Sci.***

RESEARCH GOAL

- To develop a game which a helps people to visualize the long-term effects of major expenditures or investments.
- Enable people to become better savers and investors and planners and promote financial schemes in an entertaining and novel way.

ROLE IN IMSC

- A unique **Application Research Project** realized by the coexistence of technological (IMSC) and financial (Marshall School/USC Credit Union) expertise.

UNIQUENESS

- This is a collaborative effort which aims to bring out a visually rich user interface with a proper financial simulation running it
- This game will, for the first time, allow people to see how decisions regarding bank schemes affect their lives and what a combination of fateful life events could make of their economic panorama.

ACCOMPLISHMENTS

- Implementation of a working GUI
- Partial implementation of the Financial Engine where one of the financial event icons is now working in the application.

Financial Product Icons: These icons represent financial investments and products that can statistically affect the wealth curve

Life Event Icons: These icons represent life event that can statistically affect the wealth curve

Wealth Curve: the wealth versus time graph which reshapes itself in fluid animation with different Financial Event ICONS. The curve can represent annual net worth, spending capacity, debt, or income or any other monetary aspect according to the user's choice

Wealth Range: This axis showing income range is dynamically scrollable according to the user initial statistical data and financial input

Year Range: This axis showing a range of years from the current date is dynamically scalable according to the user's initial age input

3-year Plan

1st year

prototype

2ndyear

user testing in USC Credit Union

3rd year

beta dev

Research Approach

- Conceptualization of the project as a two component system: a GUI and a Financial Engine
- The Financial Engine is structured to use statistical averages to carry out the simulation
- The GUI shall have icons representing financial decisions and events which will modify the net worth graph when dropped onto it