MICHIGAN STATE UNIVERSITY Project Plan Presentation Machine Learning for Numeracy Training The Capstone Experience

Team Anthropocene

Xukai Fang Ricky Horan Daniel Passos Christian Vaughan Matthew McDerment Phumapiwat Chanyutthagorn Department of Computer Science and Engineering Michigan State University Spring 2023



From Students... ...to Professionals

Anthropocene Institute

- Working towards the mission of solving the climate dilemma
- Partners with educational institutions and companies to advance necessary technologies
- Comprised of people with different backgrounds working together
- Wish to give the world a baseline of knowledge to enable more critical thinking

Project Functional Specifications

- Critical thinking is a key tool
- Many people lack numeracy skills
- Make the content easy to digest
- Gamify the learning process
- Retain users
- Help create a better informed public

Project Design Specifications

- Guided learning to provide users a basic foundation
- Engaging Games to reinforce learning and provide a fun experience.
- Two main game modes following unique ideas

Screen Mockup: Activites



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Numeracy Activities

The following are all the activities available for your education and enjoyment!

Estimates

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Do your best to make educated guesses and build an intuition for estimating manibers!

You can either test your skills alone or challenge someone else!

Metric Hangman

Familarize yourself with the metric system and its predict through the power of hangmant

You can either test your skills alone or challenge sumeone else!

Learn

Not sure where to start or what Numeracy here is a quick introduction into the world of numbers

Engange with our complete course on Numeracyl From understanding big numbers to scientific notation we'll teach you all you meet to know!

With the freedom to take each module at your own pace and pick the topics you find most interesting.

Top Tens

How aware are you when it comes to numbers and the world?

In this family fixed style activity check if you have the intuition for how impactful different situations are and see if you have a good grasp of the eorist's numbers.

The Capstone Experience

Screen Mockup: Learn



Screen Mockup: Example Module

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Screen Mockup: Estimates

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Screen Mockup: Metric Hangman

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Project Technical Specifications

- Front End: Javascript, HTML, and React
- Back End: SQL and Flask

• APIs: GPT-3

Project System Architecture



Project System Components

- Hardware Platforms
 - iMac, PC, and mobile devices for testing
- Software Platforms / Technologies
 - Front End
 - JavaScript, HTML, React
 - Back End
 - MySQL, Python Flask
 - GPT-3
 - Docker Desktop

Project Risks

• Risk 1

- Creating sufficient designs and prototypes
- Provide many design iterations to the client
- Risk 2
 - Properly processing data and ML models
 - Use existing/handmade questions as a baseline for ML
- Risk 3
 - Efficiently increasing the user's numeracy skills
 - Provide user with tutorials, and adapt the questions
- Risk 4
 - Grab attention and entertain the user so they come back

Use real-world stats and gamify the learning process
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Questions?



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