REU-CAAR: You’re Done!

William Gasarch-U of MD
Thanks to All Involved:

Clyde: He helped your talks be awesome!

Jodie: She got you paid.

Donna, Clyde, Eric: They helped out on Game Night.

John Dickerson: He was my co-PI.

Sharron: She manages the budget.

Mentors who guided your brilliance with their expertise.

NSF, Zhu/Google, Iribe/Ocular, Winkler Foundation

$$$$$. ALL OF YOU!

Without you there wouldn't be a program!
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**ALL OF YOU!** Without you there wouldn't be a program!
Your Advice on How to Make the Program Better

1. The Hat Problem: Students should have to wear hats.

Bill's Response: How about Virtual Hats?

2. The Egg Problem: Students should get real eggs.

Bill's Response: Okay, but if you drop them, you clean it up.

3. The Muffin Problem: Students should get to eat real muffins.

Bill's Response: Next summer: 61 muffins for 19 people, cut so that everyone gets $\frac{61}{19}$ and the smallest piece is $\frac{313}{684}$. 
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4. Wed activities at 11:00AM for CA.
5. Game Night: More variety of games. Bill agrees.
6. Give students more guidance on the talks before the first runthrough. Bill: We’ve tried that and it didn’t help. But students are better now so should try again.
7. Since so many of the projects involve Neural Nets, have a talk on that. Bill agrees.
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THOUGHT QUESTION

We had:

- REU activity once a week (usually Monday)
- Talks once a week (usually Wed)
- Four game nights
- Fairwell Talk (now!)
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Does this **interfere** with research?
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- Talks once a week (usually Wed)
- Four game nights
- Fairwell Talk (now!)

Does this interfere with research?
Should there be less non-research stuff?
Next Summer’s Projects

▶ Jim Project (This Summer: Chatbots)

▶ John D’s Project (This Summer: Auctions)
  Black Markets Auctions. Joint with Jon Katz—Crypto

▶ Bill’s Project (This Summer: Ramsey Games)
  Teach an ML to say, after a game, “We’re all winners!”

▶ Tom’s Project (This Summer: Gaming the system to get Papers into Conference)
  Gaming the System to get an REU Grant Extension

▶ Bill’s New Project
  Paradoxes in Game Theory:
  90% of the students say they like Game Nights, but 20% of the students go to Game Night.
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Next Summer’s Projects (cont)

A New Project:

Funded by The Winkler Foundation

Computing Fast Fourier Transforms:

Mentored by Furong 'Vin Diesel' Huang
Next Summer’s Projects (cont)

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Number of Students

- Most REU programs have around 80 applying
- Most REU programs take 10 students
Number of Students

- Most REU programs have around 80 applying
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- We have 310 applying.
- We take 20 students.

Do I really want 20 students in Summer 2021? If they are like you then YES
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AWWWWWWWW
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REU programs: Ours and Others

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- Projects picked ahead of time or once you are there
Academic Predictions

In the spring of 1985 my advisor (Harry Lewis, Harvard) asked me what I dreamed of doing in the next 35 years. I said: Running an REU program during a pandemic. Thank you REU-2020 for making my dream come true!

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**One More Slide**
1. Memories of the program.
2. Tell me something interesting.
3. Ask Bill Anything