Functional Programming Course Summary

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1 Introduction

This lecture summarized the recent developments and activities in the Functional Programming course. The session included a presentation of the RP competition, which encourages students to create visualizations using Haskell.

2 Technical Issues

The lecture began with some technical difficulties, which were acknowledged by the presenter. Despite these issues, the session proceeded with the planned agenda.

3 RP Competition Overview

3.1 Competition Details

The RP competition, sponsored by Galois, invites students to create visualizations or graphics using Haskell. This year, there were 26 entries, marking a record number of submissions. The quality of the projects was notably high.

3.2 Presentation of Entries

The teaching assistant, Alice Graham, introduced a video showcasing the runner-up projects. This was followed by the announcement of awards for the best contributors on Piazza and the top three projects.

4 Awards Ceremony

4.1 Best Piazza Contributor

The award for the best Piazza contributor was presented to Shlok Gupta, who consistently provided timely and helpful answers to student queries. This award included a certificate and an Amazon gift voucher.

4.2 Third Place Winners

Two projects shared third place:

- **Iskander's Hydrogen Wavefunction Visualization:** This project illustrated the probability of finding an electron within a hydrogen atom as energy levels change.
- **Zhang Yan's Fluid Simulation:** This project utilized smooth particle hydrodynamics to simulate fluid motion in 2D, allowing users to interactively turn gravity on and off.

4.3 Second Place Winner

The second place was awarded to Jiang Zhang for an interactive simulation inspired by the Pink Floyd album cover. This project demonstrated light refraction through a prism, showcasing artistic influence in programming.

4.4 First Place Winner

The first prize was awarded to a project that allowed users to draw images, which were then simulated using Fourier series. This project was praised for its interactivity and artistic approach.

5 Conclusion

The lecture concluded with a call for inspiration from the showcased projects. Students were encouraged to consider participating in future competitions and to look out for opportunities to assist in teaching roles next year.