May 2025 LILUG Meeting

May 13th, 2025 @ Digital Ballpark Pace-notes by initial author, contributors (add GitHub links if available)

News & Small Talk

- Demo of AI controlled Drones by Yutong
- June 14th LILUG BBQ in Sunken Meadow State Park Field 4 East
- Tinkering post-meeting on old audio equipment (Korg d1600 Digital Audio Workstation)

Main Discussion: Haskell Programming by Yutong Z.

- This repository was used to hold sample code for the presentation: GitHub/analytic-bias/lilugfp
- Haskell focuses on immutability.
- Haskell is function based and focused on references.
- Turing Complete: Can express any logical expression with this language; it is a full language.
- Code was shared using Visual Studio Live Share
- The compiler will stop programmers from doing dangerous/probelmatic things.
- Some classes and functions can be done dangerously -Haskell program verification is a way to enhance security, by proving that all the code is immutable. This is an example of code that is immutable: https://deepspec.org/main
- Nesting of code can be done with indents
- Functional programming can break down complex programming tasks and turn them into a scheme which can be easily labeled on a diagram. Make good functions and make good semantics, and the code will then explain itself.
- Haskell is not very good for scaled projects such as blockchain or large datasets because memory management can be more difficult than other similar languages.
- An alternative to this programming language is called Lean. Lean is able to use proofs to prevent errors before code can ever run; all code is verified. However, this means that it is no longer Turing Complete. Learn more about Lean
- Learn more about Haskell