SCREENSHOT REVERSE ENGINEERING TOOL FOR MOBILE APPS
(UTA 14-41)

Technology Need:
In mobile app development, the graphical designer creates conceptual user interface drawings (screens) in Photoshop. These drawings are then sent to the programmers, who manually convert the drawings into working user interface code. This procedure is extremely time and labor intensive, which results in excessive costs.

Solution/Offering:
Researchers at UT Arlington have developed a tool that will use screenshots of an app and automate its conversion to valid user interface code, through reverse engineering. The tool takes the screenshot of an app’s user interface as input, analyzes the screenshot and converts it into an executable Android mobile phone app. The generated app will have a user interface that looks like the input screenshot. This gives the app developers, both reduction of time and costs. The technology is innovative, as existing techniques are either manual or do not work for mobile phone apps. The prototype tool supports input screens from Android, iOS, and HTML5 and generates valid Android programs.

Value Proposition:
- Faster UI generation
- Cost saving
  - Less cycle time
  - Less labor
- iOS, Android, HTML5 Compatibility

Industrial application:
- Mobile App Development
- Reverse Engineering

Patent Status:
- Provisional

Current Stage:
- Prototyped and Tested on Google Android

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