

## Rubric for Difficulty Points

### Maximum points possible for difficulty level points: 20 points

#### Difficulty Level 1: Mobile Components and UI (4 points each)

- Every 5 Android screens (A maximum of 8 points can be earned for the UI)
- Playback audio/video
- Maps
- Location sensing
- Camera: simply taking pictures
- Telephony: initiate phone calls from within app
- SMS: Send/receive SMS
- Communicate via Bluetooth
- MPAndroid Charts, etc
- Programmable Web (REST) APIs (e.g. weather.com, evently.com, etc)

#### Difficulty Level 2: Ubiquitous Computing Components (6 points each)

- Activity Recognition
- Sensor programming, step counting
- GeoFencing
- Mobile Vision API: e.g. Face/barcode detection/tracking
- Communicate via NFC (e.g. Google Pay, transmit music playlists, etc)
- Gesture detection
- Speech recognition: speech-to-text, voice actions
- Renderscript
- Media Recorder, speech processing
- Awareness/Snapshot API

#### Difficulty Level 3 (10 points each)

- Machine/deep learning (i.e. run study, gather data or use existing dataset to classify/detect something)
- Program Android, machine learning/deep learning components