

UCSD StudentTECH 2013

Advanced Technology for Middle and High School Students

Sponsored by the San Diego Supercomputer Center,
University of California, San Diego

MIT App Inventor: Learn to Program Android Phone Applications

Monday- Tuesday, August 19-20, 2013

Class meets at the SDSC Training room from 9:00 a.m. - 3:30 p.m. daily.

Creating cellphone applications of your own in just a matter of days!

Course Overview:

MIT App Inventor for Android is a programming tool that makes it easy for anyone — programmers and non-programmers, adults and **kids** — to create mobile applications for the Android phone.

Mobile applications are triggering a fundamental shift in the way people experience computing. Ten years ago, people "went to the computer" to perform tasks and access the Internet, and they used cell phones only to make calls. Today, smartphones have become computers in our pockets, serving our communication and information needs and making the web part of all that we do. Ten years ago, people's use of computing was largely dissociated from real life. Today, with the ubiquity of social networking and pervasive communication, online and offline life are becoming fused.

App Inventor is motivated by the vision that all of us should be able to create mobile applications rather than just consume them — with "tinkerable" platforms that we can control and reshape. Ray Kinne has taught various types of programming for the last 15 years for San Diego City Schools and SDSU. He is constantly playing on his smart phone.

Monday, August 19, 2013 – Hello Kitty - Creating Your First App Within A Matter Of Minutes!

Find out all about App Inventor and why it is creating such a buzz in the programming community. The programming environment and tools such as the Component Designer, Blocks Editor, and Emulator will be discussed. We will create a simple digital portfolio where your apps will be made accessible for others to download. Next you will create your own paint programming program as we learn to create interaction, change pixel size, change colors, buttons, event handlers, and take a picture on the camera and the draw on it.

We will also create your own Whack-A-Mole game where a mole pops up on random locations on the screen. Touching the mole will cause the phone to vibrate and add to your score. We will learn about sprites, time/clocks, sound, and buttons. You will post your apps online and learn how to create quick response codes so that others can download and play your game.

Tuesday, August 20-21, 2013 – Creating Advanced Applications

Who does not love to text? Today we will create the AlertMe app receives text messages, and notifies the user *even when the app is not currently running*. If the app is running (visible on the screen), when it receives an SMS, the message will be displayed on the screen. If it's not running, the user will receive a Notification in the status bar, which can be viewed by pulling down the status bar.

Lastly we will work on Mini Golf, an addictive little game app that demonstrates how to use the **Fling, TouchUp and TouchDown** gestures on Sprites. Hold down the positioning arrows to move the ball to the desired position on the tee, then Tee Off by flinging the ball toward the hole. After a hole is scored, the screen randomly sets up a new hole, providing a unique challenge every time.

Instructor: Ray Kinne, San Diego Unified School District

Prerequisites:

- Must be a current middle or high school student
- Interested in learning how to program your own Android applications
- Willingness to work in teams
- Eager to ask questions, share ideas, and help others in the class

Course fee: \$95.00. Registration deadline: June 7, 2013. Space is limited to 19 participants.

If you have any questions regarding this workshop or the application process, please contact Ange Mason via phone at 858 534-5064 or email at amason@ucsd.edu.

MIT App Inventor: Learn to Program Android Phone Applications

August 19-20, 2013

Applicant Information:

Name: _____
Last First Middle

Mailing address: _____
Street Address or Post Office Box City/State Zip

Telephone: _____ Email: _____

Date of birth: _____ Age as of June 30, 2012: _____

Gender: _____ Male _____ Female

San Diego County Middle or High School: _____
School name District

Grade completed by June 2012: _____

Email: (optional) _____

Parent or Legal Guardian Information (if applicant is under 18): (Please Print)

Name: _____

Mailing address: _____
Street Address or Post Office Box City/State Zip

Telephone: (Home) _____ (Work) _____

Email: (Please Print) _____

Course fee: \$95.00

Please make your check or money order payable to UC Regents and submit both payment and application in a single envelope to the following address:

Ange Mason
Attn: Student Summer Workshops
San Diego Supercomputer Center
University of California, San Diego
9500 Gilman Drive, Mail Code 0505
La Jolla, CA 92093-0505

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