

Ankit Kumar

3361 St. Michael Court, Palo Alto, California 94306
(315) 728-8955 | akumar15@sy.edu | kumarankit.com

EDUCATION

Syracuse University, Syracuse, New York
M.S., Computer Science, May 2016

GPA: 3.56

Relevant Coursework

Mobile Operating Systems, Principles of Operating Systems, Object Oriented Design, Computer Security, Computer Architecture, Software Engineering, Structural Programming and Formal Methods

Pune University, MIT College of Engineering, Pune, Maharashtra, India
Bachelor of Engineering, Computer Engineering, May 2014

INDUSTRY EXPERIENCE

BMW of North America, *Augmented Reality Intern*, September 2015 to Present, Mountain View, California

- Developing Augmented Reality wearable prototypes with Unity Engine.
- Integrating Arduino with Unity to develop Networked Multi-user prototypes.

OnRoute Digital Media, *Lead Android Programmer*, October 2014 to March 2015, Syracuse, NY

- Developed and integrated the *BreadKrum SDK*, a platform for delivering real-time targeted, location based content.
- Developed and Tested location aware geo-fenced applications for Android devices, which communicates with back end server via JSON request and response.
- Implemented Beacons, for android devices, a Bluetooth low energy proximity sensing device.

Rubus Labs (BlackBerry), *Summer Intern*, June 2013 to September 2013, Gurgaon, India

- Awarded a 5-star rating and the distinction of **BuiltForBlackBerry™** for adhering to BlackBerry app design guidelines, for the application built as an intern.

PROJECTS

Remote Code Management Facility (Coursework, April 2014)

- Designed and developed a Client-Server application using the peer to peer communication model.
- Multiple clients can interact with multiple servers via GUI (WPF Client using Managed C++), by selecting from a list of available servers.
- Clients can upload and download code files to and from the Servers and can request string/file search on the code files hosted by multiple servers.

Thots, A Micropost (Independent project)

- Used Python with Flask micro-framework with Bootstrap for UI to create a micro-post web application.
- Application supports features such as user management, profiles, avatars, login, posting, following users and a full text search.
- Deployed to the web on the Heroku cloud

Android App Developer (Independent projects)

- **'The Attendance App'**, for students to be able to manage their schedules, used SQLite as the database and developed an algorithm to enable students to predict the number of classes they need to attend to fulfil the attendance requirement, resulted in my understanding of development principles in android applications.
- **'Sneaky Cam'**, to allow users to take photos discreetly, by layering the camera preview with screenshots as selected by the user or by providing a resized preview of the photo. Received high reviews by many well-known technology websites such as *Phonearena.com* and *makeuseof.com*
- **'QuickShot HD'**, to quickly capture easy-to-miss moments and take photos without actually having to initialize the camera app in the traditional way, overcoming an existing *Android* OS limitation, reduces time taken by a factor of 2 on an average. Received very high reviews from technology journalists such as *AndroidPIT.com*, *Droid-life.com*, *Phonearena.com* and many others who have called it "*The Ultimate Camera App*"

Image Plagiarism Detection Tool (Coursework, May 2014)

- Developed an image plagiarism detection tool that detects rotational, aspect ratio and cropping attacks on images, using a perceptual hash algorithm. Created and constructed the algorithm to detect plagiarism

Study of Tizen Mobile Operating System (Coursework, December 2014)

- A study of the Tizen Operating System, with a comparison to Android operating system.
- The study involved the analysis of the Tizen architecture, the security model, app development, review of app vetting procedures and a study of static analysis done on existing applications.

TECHNICAL SKILLS

Programming Languages: Java, C++, C, Python; **Familiar:** CSS, HTML, JavaScript, Swift, C#

Application Software: Adobe Photoshop, IntelliJ (IDE), Android Studio, Arduino, Visual Studio, XCode, Unity

Other: Android (proficient), iOS, MySQL, SQLite, Git, Unity Engine.

PUBLICATION

Authored a paper on '*Mitigation of Rotational Constraints in Image Based Plagiarism Detection Using Perceptual Hash*' published in **International Journal of Computer Science Trends and Technology**, Mar-Apr 2014 Issue.

LEADERSHIP EXPERIENCE

'Robocon Team' at MIT College of Engineering, Pune University, *Captain*, March 2013 to March 2014

- Oversaw and orchestrated a team of 51 students from various disciplines of engineering, earned 6th position out of 84 teams, nationally, in the event
- Collaborated with college officials to generate a budget of \$16500 to sponsor the team
- Programmed the *AtMega 1280 and 2560* micro-controllers with peripheral sensors such as encoders and laser distance sensors amongst others, to provide autonomous locomotion to the robots
- Programmed a kiwi-drive (3-wheel drive) robot with the help of a 3-axis gyroscope to perform autonomous locomotion as part of a competition (**ABU Robocon-2013**)