Ankit Kumar

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EDUCATION

Syracuse University, Syracuse, New York
M.S., Computer Science, May 2016 **GPA**: 3.64

Relevant Coursework
Mobile Operating Systems, Mobile Application Programming, Object Oriented Design, Computer Security, Computer Architecture, Software Engineering, Design and Analysis of Algorithms, Text Mining in Social Media

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 January 2016, Mountain View, California

- Developing Augmented Reality Next generation helmet prototypes using C# and Unity3D for platform independence
- Integrating Arduino with Unity using Serial communication to exchange data with peripheral devices to create an immersive demo for CES 2016
- Worked on various hardware and software components of the BMW Motorrad Vision Head-Up Display prototype

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

- Enhanced 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

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 and 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 the study of static analysis done on existing applications.

TECHNICAL SKILLS

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

Research & Development in Robotics 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 and raised a budget of $16500 in collaboration with college officials
- 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***)