# PRANJUL ARORA

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## EDUCATION

Master of Science, Computer Engineering (Software Track)                                     **GPA: 3.929/4.0**
**Syracuse University, Syracuse, NY**                                                          **May 2018 (Expected)**

**Relevant Coursework:** Object Oriented Design, Software Modelling Analysis, Advanced Data Structures, Design Patterns, Computer Security, Android Programming, Mobile Application Programming (IOS).

Bachelor of Technology - Information Technology                                                **GPA: 7.76/10.0**
**ITM University**, **Gurgaon, India**                                                          **May 2014**

## TECHNICAL SKILLS AND INTERESTS

- **Programming Languages:** C++ (Sockets, Multithreading), C, C# .NET, Java, J2EE- (Servlets, JDBC, JSP), SQL, Shell scripting.
- **Web/Mobile Development:** iOS- Swift-2/3/4, Android, Firebase, Angular 2, REST API, JavaScript, HTML, XML.
- **Security:** Secure SDLC, Source Code Review, Software/System Security, Web Security (OWASP top 10), Mobile Security (Android)

## TEACHING AND RESEARCH EXPERIENCE

**Graduate Teaching Assistant | Syracuse University, NY**

- Object Oriented Design (C++) - Spring 2018, Android Programming - Fall 2017
- Responsibilities include conducting regular help sessions; demonstrating design strategies and concepts through examples.

**Graduate Research Assistant | Syracuse University, NY**                                       **Oct 17 – Present**

- Developing an Education based recommendation system on Android and iOS platform that records user's behavioral information by storing current locations, visited topics and timestamps on Firebase and recommends events based on analysis.

## TECHNICAL EXPERIENCE

**iOS Developer Intern | Up2Code, NYC, NY**                                                     **May 17 – July 17**

- **Technologies Used**- Swift 3, Firebase, JSON, JavaScript in cloud functions.
- Developed iOS application that provides users real-time information on their favorite restaurants and interactive sliders to rate them.
- Facilitated users with Apple Maps to find restaurants and used geo-fencing to restrict users from rating a restaurant without visiting it.
- Implemented cronjobs (HTTP request) to invoke cloud functions which manage old-ratings on Firebase.

**Member Technical Staff | NEC Technologies India Private Limited, Noida, India**                **Dec 14 – July 16**
**ClusterPro Replacement (HydraSTOR's Component- NEC Product)**

- **Technologies Used**- Python, shell scripting, Open Source Software- Pacemaker, Corosync, and DRBD.
- Gathered requirements and formulated them to develop design for replacement of distributed grid management system.
- Developed Proof of concept and prototype for replacement using Pacemaker, Corosync, Distributed Replicated Block Device.

**Start-Stop Automation Tool (Used- Python and shell scripting)**

- Solely developed a tool that measures HYDRAstor's start-stop performance and used XlxsWriter to create an excel sheet for results.

**Software Developer Intern | Jabong.com, Gurgaon, India (C#.NET Project)**                      **May 13 – July 13**

- Solely developed a server monitoring tool that displays and reports the status of the services hosted on the Servers using Tachometer.

## PROJECTS

**VenYou – Android, iOS and Web (Angular 2)**                                                    **Nov 17 – Nov 17**

- Developed event organization application which suggests events based on the user's interest and host ratings managed on Firebase.

**Type-based Dependency Analysis & Remote Code Publisher -** C++ (Sockets & Multithreading), XML, CSS, JS        **Feb 17 – May 17**

- Analyzer extracts lexical contents from source code files- "**.h**", "**.cpp**" and "**.cs**"; it then generates an Abstract Syntax Tree and analyzes it to build Type Table and find dependencies between a set of files which get stored using NoSQL database.
- Publisher publishes the analyzed code files as web pages and provides the facility to expand and collapse classes, functions bodies.

**NoSql DataBase -** C++, XML                                                                    **Jan 17 – Feb 17**

- Developed a Key/Value in-memory database using unordered-map persisted to an XML file and an interactive query mechanism.
- Implemented template class to store Key/Value pairs with meta-data and child relationships with other values.

**Workout Trainer (Android Project) -** Java, XML, Firebase, JSON, Google and Facebook API's       **Apr 17 – May 17**

- Developed fitness application that provides users with audio and visual feedback while exercising.

**Test Harness -** C#.NET, WCF, WPF, XML, Multithreading, App Domains                            **Aug 16 – Dec 16**

- Developed automation tool that is based on a client-server architecture to automate and ease integration testing.
- Implemented functionality to test multiple client's code concurrently and generate detailed test reports for clients.
- Developed WPF GUI to- upload XML input files, display output; and a query mechanism to retrieve records from the repository.