1701 E 8TH ST, #213
TEMPE, AZ-85281

MANOJ SHANKAR A J

https://www.linkedin.com/in/manoj-shankar-aj/

manandav@asu.edu
+1-480-859-4007

SUMMARY

A technically sound computer science graduate student with 2 years of corporate experience in a global cloud company coupled with in-depth knowledge in Algorithms, Data Structures, Database systems and Full-stack development looking for Summer Internship opportunities in 2018.

TECHNICAL SKILLS

Programming Languages: Java, C++, Python, Javascript
Databases: MySQL, PostgreSQL, Redis
Operating Systems: Windows(10,7),Linux, Mac OS X
IDE/Tools: NetBeans, Eclipse, Visual Studio, GitHub, Mercurial, Jenkins
Web: HTML, CSS, Handlebars, JSP, jQuery, Ajax

EXPERIENCE

ZOHO CORPORATION, Chennai, India — *June 2015 – June 2017*

Member Technical Staff

- Worked solo to develop a **'Mass Operations' framework** for the cloud application **Zoho CRM** which lets users to perform bulk operations like updating, deleting, changing ownership of up to 100,000 records in a module.
- Developed the scheduling mechanism to perform these heavy DB related processes with minimal load on the application server.
- Developed the complete back-end code in **Java** along with constructing optimized queries to fetch the huge no of records using **PostgreSQL.**
- Showed the live progress of the running and scheduled jobs to the users using **Javascript, jQuery, Ajax, and Handlebars.**
- Developed **Translation Platform** for **Zoho CRM** which enables users add new languages and translations to the Zoho CRM application
- Analysed and used **Redis** as a cache to efficiently store and quickly retrieve the translations provided by the user.
- Developed the back-end code in Java to apply the user provided translations efficiently across the whole CRM web application.
- Developed new features in the Zoho CRM Plugin for Microsoft Outlook using **C#** which enables synchronization of Contacts, Tasks, Events between Zoho CRM and Outlook.

SAMSUNG RESEARCH & DEVELOPMENT INSTITUTE , Bangalore, India — *May 2014 – July 2014*

Summer Intern

- Worked in the **IMS-Media Team**, the team that manages the Samsung **VoLTE** stack.
- Learnt the architecture of the IMS-Media Framework Client, the VoIP and its component protocols like Session Initiation Protocol (SIP), Real-time Transport Protocol(RTP), Real-time Transport Control Protocol(RTCP) etc.
- Learnt in detail the inner workings of a video call in Samsung mobile over LTE and studied the various color models like RGB, YUV, YCbCr and **implemented conversions of a frame** from one color model to another in C.
- Developed a new feature in the video chat application of Samsung S5 mobile by **developing and implementing image processing algorithms** in **C** which enables users perform various interactive animations on the participants during the video chat using DTMF.

EDUCATION

MASTERS IN COMPUTER SCIENCE
Arizona State University, USA — Aug 2017 - May 2019 (expected)

B.TECH - INFORMATION TECHNOLOGY — **CGPA: 8.12/10**
Madras Institute of Technology, Anna University, Chennai,India — Aug 2011 - April 2015

ACADEMIC PROJECT

Adaptive video streaming over HTTP employing dynamic on the fly bitrate analysis — Jan 2015 - March 2015

- The aim was to **implement an adaptive client-server video streaming system** in which the client analyses the bit rates on the fly and sends a feedback to the server which in turn changes the frame rate and quality of the video to maintain smooth video playback.
- **Developed a mathematical model** to judge the bandwidth conditions from the incoming bit-rates and incorporated it in **an intelligent algorithm at the client** to analyse the incoming video stream.
- Implemented the algorithm in **Java** employing **multi-threading concepts** achieving avg PSNR of 36.267 and SSIM of 0.9683.

PUBLICATIONS

- Dhananjay Kumar, Nandha Kishore Easwaran, A. Srinivasan, **A. J. Manoj Shankar** , L. Arun Raj. " Adaptive video streaming over HTTP through 3G/4G wireless networks employing dynamic on the fly bitrate analysis". ITU Kaleidoscope: Trust in the Information Society (K-2015), Barcelona, Spain, December 9-11, 2015, Published in IEEE Xplore.