MUKUND MANIKARNIKE

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CAREER SUMMARY

- Since 2014 until now, I've been interested in specifics of video delivery. I currently work on the back-end of a video management platform that enables live streaming. Well versed in the understanding of the requirements for the beack-end of such a system.
- Worked on MAC layer for WLAN from 2011 to 2014, interfacing with TCP from the host and Physical layer below it. Well versed in these protocols as well.

EXPERIENCE

Brightcove Inc. – Scottsdale, Arizona, USA **September 2016 to Present**
Software Engineer, Live Streaming
Live streaming platform

- Back-end services for a live streaming platform using AWS services like Lambda, EC2, Dynamo etc.
- Provisioning live streams, highlights extraction and implementation of services like analytics reporting, housekeeping.

Ittiam Systems Pvt. Ltd. – Bangalore, Karnataka, India **June 2014 to Dec 2014**
Senior Engineer, Communications SOC Group
Live Streaming Platform

- Understanding specifics of video ingestion and delivery using AWS services
- Developing Proofs of Concepts related to some parts of the platform like a web application, virtualization of environment deployment using Chef and Vagrant were part of my work.

WLAN MAC Layer protocol development

- Implemented features like Sniffer, Frame Injector, External Supplicant, authenticator, WPS.
- Single point of contact for several customers to complete Wi-Fi Certification and Connectivity Chip tape-outs.
    - Solved issues related to low throughputs, inter-operability, memory corruptions and link losses.

Arizona State University – Tempe, Arizona, USA **Feb 2015 to Feb 2016**
Graduate Student Assistant, School of Sustainability and Engineering
Desktop application called PrioriTox for toxicity analysis in Java (Programming Language – Java)

- Built all parts of the application from scratch and an MS Windows installer
    - Generating uniform, normal distributions using Apache Commons library and interacting with MS Excel macros programmatically to generate emission toxicity levels to air, water and soil.
    - Visualizing results graphically using JFreeChart histograms and rank correlations.

EDUCATION

Arizona State University – Tempe, Arizona, USA **January 2015 - August 2016**
Master of Computer Science *GPA: 3.58/4.0*
Relevant Courses: Data Mining, Statistical Machine learning, Social Media Mining, Multimedia Information Systems, Distributed Software Development, Advances in Databases, Database Management System Implementation

PES Institute of Technology – Bangalore, India **September 2007 - June 2011**
Bachelor of Science, Information Science and Engineering *GPA: 8.02/10.0*
Relevant Courses: Analysis and Design of Algorithms, Data Structures, Database Management Systems, Software Engineering, Operating Systems, Computer Networks, Mobile Computing

ACADEMIC PROJECTS more>>

SOAP Explore *(C#)* – Search application to find SOAP services using Google's APIs
Restaurant Recommender System *(Python)* **–** Recommender built on Yelp Data using Sci Kit Learn libraries.
Main Memory Database *(C, Java)* – Performance comparison of indexing techniques on Main Memory Databases.
Twitter Hashtag Prediction *(Python)* - Prediction of twitter hashtags through supervised learning.
Cryptographic algorithms *(C)* – Designed and implemented algorithms for encryption and breaking password hashes.

ACHIEVEMENTS

Secured 3rd place in the 2nd Annual Code Challenge conducted by SoDA at ASU **February 2016**
Spot Award for development of an inventory tracking system **August 2013**

TECHNICAL SKILLS

Programming Languages: Java, C/C++, Javascript, C#, Python, HTML, CSS,
Protocols: Apple HLS, IEEE 802.11, TCP, REST, SOAP,
Tools: Eclipse, Intellij, Webstorm, Visual Studio, Docker, AWS Lambda, AWS EC2, AWS Dynamo, Datadog, Wowza