

SKANDH PATHAK

<https://skandhp.github.io>

skandhp@andrew.cmu.edu

Phone: (412) 218-9535

EDUCATION

Carnegie Mellon University

Master of Information Systems Management

May 2018

GPA: 3.89

Major Courses:

- 15-619 Cloud Computing
- 95-702 Distributed Systems
- 95-703 Database Management
- 17-611 DevOps: Modern Deployment
- 95-771 Data Structures and Algorithms
- 95-737 NoSQL Database Management

College of Engineering Pune

Bachelor of Technology in Electronics and Telecommunication Engineering

May 2014

SKILLS

Languages: Java, Javascript

Frameworks: J2EE, Spring, Hibernate, JUnit, Mockito, Ionic, AngularJS, OpenCV

Databases: MySQL, HBase

Miscellaneous: Docker, Kubernetes, Jenkins, Chef, Nagios, Git, ElasticSearch, Redis

WORK EXPERIENCE

Software Engineer, Vuclip India Pvt Ltd

Dec 2015 - Apr 2017, Pune, India

Developed a microservices based Video-On-Demand platform using Spring, Hibernate and MySQL

- Reduced new product development time by 40% by automating database operations
- Developed a real time revenue dashboard using ElasticSearch, Logstash and Kibana
- Overhauled the UI to conform to Google's material design guidelines; compatible with over 8000 devices
- Designed and implemented safeguards against security vulnerabilities like XSS and CSRF

Systems Engineer, Infosys Ltd

Jul 2014 - Nov 2015, Bangalore, India

Implemented a TIBCO ESB solution for a Fortune 500 energy client

- Ranked in the top 5% of 700 engineers in the Infosys Foundation Training Program
- Developed key components to validate and route the data flowing through the ESB
- Led a POC aimed at cutting licensing costs by using open source integration platforms instead of proprietary solutions

PROJECTS

Carnegie Mellon University

- **Parallel Big Data Analysis of Wikipedia Traffic Using Hadoop Streaming:** Analyzed one month of Wikimedia data (~340GB) using AWS Elastic Map-Reduce, Azure HDInsight and GCP Dataproc to correlate most viewed articles with events that sparked their popularity.
- **Autoscaling Distributed Services Using Kubernetes:** Created Kubernetes clusters on AWS and Azure to develop a scalable and reliable code execution engine.
- **Geographical Analysis of Crime Data Using Spatial Partitioning Trees:** Implemented a 2D tree to allow logarithmic time lookup for all the crimes committed in a given geographical area. Integrated results with Google Earth for intuitive visualization.

College of Engineering Pune

- **Analysis of Survival Probabilities of Chess Pieces:** Analyzed over 275,000 chess grand master games to calculate the average survival probability of various pieces. $O(n)$ time and space complexity.
- **Beating Boggle:** Solved a 100 X 100 boggle board with a dictionary of over 500,000 words in under 4 seconds using prefix trees.
- **Vehico:** Created a hybrid mobile application for a cloud based automobile analytics solution
- **Android Based 3-d Dimensioning System:** Developed an android application to measure the dimensions of an object using object segmentation and 3D re-projection algorithms. Avg error < 2%

ACTIVITIES

- Author of a blog about data structures and algorithms with over 150,000 views since 2015
- Contributor at tuturself.com, a collaborative learning platform for Java and related technologies