PIYUSH KIDAMBI

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EDUCATION

Stony Brook University - Masters in Computer Science **August 2019 - December 2020 (Expected)**
Coursework : Distributed Systems, Analysis of Algorithms, Data Science, Human Computer Interaction, Visualization & Visual Analytics, Probability & Statistics for Data Scientists, Logic in Computer Science.

YCCE - Bachelor of Technology in Computer Technology **August 2012 - May 2016**
Relevant Coursework - Data Structure, Operating Systems, Database Management Systems, Object Oriented Programming, Computer Networks, Computer Architecture & Organization, Cloud Computing, System Programming, Computer Graphics.

SKILLS

- **Languages :** C++, Python, Java, C, Erlang, goLang, SQL, Javascript, Bash, ksh. **Web Technologies :** d3.js, HTML, Flask, PHP, CSS.
- **Cloud Service & Technologies :** AWS (CloudWatch, Lambda, EC2, EMR, IAM, DynamoDB). **Others:** Spring, Mockito, Git, Jira, CVS

RELEVANT EXPERIENCE

Amazon Web Services (AWS), Seattle, US - SDE Intern **June 2020 - August 2020**
- Designed and developed a **framework** to publish QuickSight Data Ingestion **metrics** on Customer's CloudWatch.
- Published **3 unique metrics** with **2 dimensions** on **400+** Customer Accounts each containing multiple datasets. So, a total of **30K+ metrics** were published which helps the customer to monitor and set up alarms in case of any errors.
- Wrote **Unit** and **Functional** Tests using Mockito in Java with $\sim$**90% code coverage. [Java, Spring, Mockito]**

Tata Consultancy Services - Software Developer **August 2016 - November 2018**
Client - Ericsson R&D

- Built Simulations & implemented features for different types of nodes (capable of creating, receiving & transmitting information) of Ericsson cellphone tower hardware. Upgraded Erlang OTP version on different Linux distros **[Erlang]**
- Researched into different nodes capabilities and reported a detailed analysis on their parallel execution in a cluster and on a single VM which increased the **efficiency** of machines by $\sim$**30%** and decreased the **crash** rate by $\sim$**80%** . **[Python & Shell Scripting]**
- Automation of product release document (saved **48+** developer hours every sprint) & automation of internal workflows. **[Python]**

Smart Interviews - Teaching Assistant **August 2018 - October 2018**
- Problem solving using Algorithms & Data Structure : Responsible for clearing doubts of students in class & evaluating Coding Assignments. **[C, C++, Java, Python]**

Persistent Systems - Software Development Intern **October 2015 - April 2016**
- Developed a Virtual Reality game using Unity 3D. Deployed it as android application running on Google Cardboard. **[Unity, C#]**

PROJECTS

- **Raft** - Implemented leader elections, Consensus & persistent state of Raft consensus Algorithm. **[goLang]**
- **Map-Reduce** - Reproduced Map-Reduce library & worker failure components from MapReduce paper.**[goLang]**.
- **Search Engine** - Developed an efficient retriever for Wikipedia dump which provided documents ranked by their relevance for queries. Field & phrase queries supported. **[C++]**
- **Shark2** - Implemented SHARK2 algorithm to decode a user input gesture & output the best decoded word from a dictionary containing 10,000 words. **[Python]**
- **Demand Forecasting & Time Series Analysis** of Retail Sales using ARIMA & LSTM Models **[Python]**
- Developed **Covid-19 Dashboard** by including visualization techniques like Choropleth maps, Time series forecasting, interactive bar charts involving brushing and linking, etc **[Python, d3.js, HTML, CSS]**
- **Linux Mini Terminal** - Implemented in C programming language using concepts of Fork, Exec & Pipes. **[C]**
- **E-Learning Portal** - Created E-Learning portal having 4 interfaces - Staff, Admin, Free & Paid user. **[HTML,PHP, SQL,Javascript,CSS]**
- **Data Analysis and Hypothesis Testing- Covid19 + AQI** - Utilized multiple statistical tests and parametric/non-parametric inference techniques to identify valuable insights through the ever changing COVID-19 data, augmenting it with the Air Quality Index (AQI) from the State of Pennsylvania in the US. **[Python]**

ACHIEVEMENTS

- Qualified for **ACM-ICPC** regionals (India) in 2014 & 2015.
- Completed Foundations & Advanced Level Certification of Codechef Certified Data Structure & Algorithms Programme.
- Stood **1st** in CodeQuest-2018 organized by TCS.
- Stood **2nd** in Hack Defenders - 2019 (Oracle Coding Contest).
- Stood **9th** in "Hack the Interviews - U.S. (2020)" organized by Hackerrank.
- Awards Received in TCS - Special Initiative Award & Learning Achievement Award.

EXTRA CURRICULAR

- Organized Inter-Collegiate Programming Contest as part of College Fest which was awarded as the Best Event.
- Completed Level-1 & Level-2 of Ethical Hacking.