

Kartik Deshpande

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EDUCATION

Binghamton University, State University of New York, Watson School of Engineering
Master's of Science in Computer Science

Expected May 2019

Courses: Distributed Systems, Computer Security, Computer Architecture, Programming Languages, Design and analysis of algorithm, Operating Systems.

KLS Gogte Institute of Technology, Belgaum, India

May 2016

Bachelor's of Engineering in Computer Science

Courses: Data Structures and Algorithm, Operating Systems, System Software, Database Systems, Computer and Storage Area Networks, Formal Languages and Automata, Compiler Design, Object Oriented Programming and Modeling, Programing the Web.

TECHNICAL SKILLS

Languages: Python, Java , C ,C++, PHP , Shell Scripting, Javascript
Software : Git, Docker, Pycharm , IntelliJ ,Eclipse, Vim
Database : MySQL , Postgresql ,Oracle, Cassandra
Client/Server : Google's protocol buffer, Apache thrift, Apache and Nginx Web server
Additional: Sound knowledge of TCP/IP Networking protocols, Java web applets

PROFESSIONAL EXPERIENCE

Binghamton University, Research Project Assistant

Binghamton, NY, **November 2017 - Present**

- On going development of a PHP based Web project on Product Inventory system.
- Implement, monitor and maintain changes to webpages via CMS.
- Configure, deploy and support desktop, laptop, and associated software.

Shreshta IT Technologies pvt ltd, Software Developer

Belgaum, India, **June 2016 – June 2017**

- Built a Personalized Cloud Data storage application and file server with active directory integration.
 - Designed a Virtual Private Network software having remote access and site to site VPN.
 - Developed and Dockerized a Software Update distributed application ,made it portable and cloud vendor independent.
 - Developed a Linux based Network Firewall.
 - RESTful API Development using Flask.
 - Reverse Port tunneling for bypassing blocked / closed networks.
 - Developed a Web Filtering software using Iptables and proxy server.
 - Developed web applications.
 - Working knowledge under database management ie. mysql , postgresql.
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PROJECTS

A Cassandra type Fault tolerant Distributed NoSQL database (python)

- Supports scalability and high availability without compromising performance by implementing eventual consistency.
- Data is automatically replicated to multiple nodes for fault-tolerance.
- Implementation of Read repair and hinted handoff to handle inconsistent data in replicas because of eventual consistency.
- Similar to Cassandra client can configure consistency levels when issuing a request.

Movie Recommendation system (java , scala and C)

- Built by integration of three programming paradigms (procedural , functional and object oriented).
- Java to provide a web based user interface.
- Scala integrated with Java to use a Cosine ranking algorithm to rank movies.
- C to initially populate database with existing movies from movie list and refine user search history.

Distributed banking application using google's protocol buffer (python)

- Implemented the Chandy–Lamport algorithm to capture global snapshots (state of all branches) by sending marker messages.
- The snapshot includes balance of all branches and the money in transit from one branch to another.

A ROB based Pipeline Simulator (java)

- Supports Register-to-register instructions, Memory instructions and Control flow instructions.
- Implements register renaming and use of physical register and memory bypassing.
- Instructions can be issued and completed out of order which makes it more efficient.

Port Checker (python - flask)

- A web based application written with Flask (Micro framework for Python) which checks if a port is open or closed of a remote server/network.
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