# ATHARVA DESHPANDE

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### **EDUCATION**

University of Maryland, College Park, MD
M.S., Telecommunication Engineering
University of Pune, India
B.E., Electronics and Telecommunication Engineering

GPA- 3.50 (Expected May 2017) GPA-3.8 (May 2014)

## **SKILLS**

LANGUAGES: Python, Java, C, MATLAB, HTML, SQL, JavaScript, CSS

SOFTWARE: Eclipse, MySQL Workbench, Cisco Packet Tracer, Putty, MS Office

PROTOCOLS: TCP/IP, DNS, DHCP, UDP, RIP, ARP, HTTP, BGP, LAN/WAN, Ethernet, VLAN

### **TECHNICAL EXPERIENCE**

#### **Programmer Analyst Trainee, Cognizant Technology Solutions**

Chennai, India

• Developed and tested a web application using Java, Html and Tomcat server.

(November 2014 - March 2015)

- Created user login, published MySQL database and created a user friendly interface to query the data.
- Managed a team of 4 members and interacted directly with the client to gather project requirements.

IT Support, SKNCOE Pune, India

Provided thorough support and problem resolution for staff in college.

(January 2013-May 2014)

Was responsible for setting up the projectors, installing software and hardware and troubleshooting the computer systems.

#### **PROJECTS**

#### Client- Server Secure Socket Layer (SSL) programming (Python)

(May 2016-present)

- Implemented a client program to communicate with a server using sockets.
- Mathematical operations were performed on inputs (Integers/Operators) and returned a solution to server.
- A secret flag was returned for computing all possible mathematical expressions successfully.
- Currently, implementing a Secure Sockets Layer (SSL) to create a secure communication between client and server.

#### Cellular Simulation of a Base Station in Python

(April 2016-May 2016)

- Developed a simulator in Python for a 3-sectored base station to analyze the network performance using cellular parameters such as number of channels, received signal strength, propagation loss, call blocks, hand off failures.
- Analyzed their effect on system utilization and Grade of Service and produced a statistic report on call drops, successful calls, successful hand-offs to understand system reliability.

## **UDP based Client-Server application using Java Socket Programming**

(November 2015)

Developed a networking application in Java consisting of a transmitter and a receiver that can ensure reliable data transfer and
cryptographic authentication on top of UDP's unreliable communication services using RC4 algorithm and socket programming.

#### Image Stitching for Situation Awareness in Battle Management System

(June 2013 -May 2014)

- Implemented and compared two Image Stitching algorithms SIFT and SURF using MATLAB which compensated critical disadvantages of RADAR, LINAR such as jamming, interference.
- The project demonstrated a seamless connection using feature extraction, feature matching with two or more images having common overlapping part to get a higher resolution and 360 degree panoramic image.
- Won 2nd prize in the IET (Institute of Engineering and Technology) project competition out of 40 teams.

#### **RELATED COURSEWORK**

Networks and Protocols

Computer Networks

- Interactive Programming in Python
- Digital Communications
- System Programming and Operating Systems
- Computer Architecture