ARWA HATIM GINWALA

3419 Tulane Drive #14, Hyattsville, MD 20783.
+1(240)-893-1617 aginwala@umd.edu

EDUCATION

M.S., Telecommunications Engineering, University of Maryland, College Park, MD.
Expected graduation: **May 2017**. **GPA: 3.73/4.0**
Relevant Coursework: Network and Protocols, Digital Communication, Cellular Communication Networks

B.E., Electronics and Telecommunication Engineering, Sinhagad College of Engineering, Pune University, India.
Graduated: May 2014. **GPA:3.90/4.0**
Relevant Coursework: Data Structures, Microcontroller and Applications, System Programming and Operating System

SKILLS

- Languages: Java, Python, C, Exposure to MySQL, COBOL, and JCL,
- Networking Protocols: TCP/IP, IPv4, IPv6, DNS, HTTP, RIPv1,v2, OSPF, BGP,DHCP, UDP, STP, ARP, CSMA/CD
- Software: Wireshark, Cisco Packet Tracer, MATLAB, LTSpice, Altium, NI Multisim, LabView, Arduino, BMC ITSM
- Computer skills: Windows OS, MAC OS, Microsoft Office Suite, Photoshop, exposure to LINUX
- Managerial skills**:** Scrum, Agile Methodology, SDLC

PROJECTS

Python application to simulate the down-link behavior of a 3-sectored basestation **April 2016-May 2016**

- Simulated a 3-sectored base-station for 6 hours to serve 800 uniformly distributed users on an 8 km road.
- Recorded the dropped calls due to signal strength and capacity to calculate the Grade of Service.
- Handled hand offs between the sectors with efficient channel handling.

UDP implementation using JAVA Socket Programming
University of Maryland, College Park, MD,USA. **Oct 2015-Nov 2015**

- Developed a distributed networking application in Java to send data from transmitter to receiver using socket programming that can ensure reliable data transfer on the top of UDP's unreliable communication services.
- Implemented cryptographic authentication such as RC4 stream encryption algorithm and integrity checks.

Human Health Status Monitoring and Disease Prediction System **Aug 2013- May 2014**
Pune University, India.

- Researched, Designed and tested Microcontroller based system to measure human body temperature and pulse rate.
- Performed signal conditioning on sensor outputs using analog devices to send accurate digital input to Atmega16.
- Automated the system to give disease predictions instantaneously or averaged over automated hourly or daily readings.
- Awarded 3rd best place out of 40 projects.

ACHIVEMENTS

Patent: Ginwala, Arwa (co-inventor).2015. METHODS AND SYSTEM FOR A TURBOCHARGER. US Patent Number 14/931906, filed Nov. 04, 2015 Patent Pending.

Paper: Lead author, "Measurement And Wireless Transmission Of Vital Health Parameters" published in *International Journal Of Science, Engineering And Technology Research (IJSETR), Vol 3, Issue 9, September 2014.*

Certification:

- "Data Structures and Algorithms" www.Coursera.com, by University of California, San Diego.
- C Programming, SEED Infotech Pvt. Ltd., India
- CCNA Training, expected certification July 2016.

WORK EXPERIENCE

Intern for Product Design and Development, *N5 Sensors Inc., MD. USA.* **Nov 2015 - Present**

- Member of team developing products for Homeland Security and NASA.
- Designed and developed an Arduino based System to measure ambient temperature and humidity using DHT22 sensor.
- Implemented Bluetooth data transmission to display the sensor output on an Android application developed in JAVA.
- Designed a circuit and PCB layout for signal processing and A/D conversion of Gas sensor output.

Associate Software Engineer, *Accenture, Pune, India.* **Aug 2014 – June 2015**

- Supported backend databases for 12 banking applications in Mainframe environment. Created, monitored and resolved problem tickets for clients using BMC ITSM ticket handling tool.
- Developed automation codes using COBOL and JCL. Conducted quality assurance testing.
- Awarded 50 performance points for delivering presentations on client's functional requirements to the team .

Intern, *General Electric Global Research, Bangalore, India.* **June 2013- July 2013**

- Designed and developed a signal processing circuitry using Op-Amps for Turbocharger Health Monitoring.
- Carried out simulations of Analog Circuit using LTSpice and used MATLAB to analyze the results.
- Tested the circuit using bread board in Lab environment and designed a PCB for prototyping.

ACTIVITIES

Representative, *Graduate Student Government, University of Maryland, College Park* **Spring-Fall 2016**
Treasurer, *Sponsorship and Campaigning committee, Sinhgad College of Engineering, India* **Sep 2012-April 2014**
Tutor, *Student Awareness Contest 2012,IEEE Pune Section, India.* **Aug 2012-Dec 2012**