

# RIDDHI REX ANTONYREX

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## EDUCATION

MS IN COMPUTER SCIENCE, Stony Brook University, New York

Expected Grad: Dec 2018 | CGPA: 3.54

POST GRADUATE DIPLOMA IN IT MANAGEMENT, Symbiosis Center for distance learning, India

Grad: May 2016 | Percentage: 81.2%

BACHELOR OF ENGINEERING, COMPUTER SCIENCE, Thiagarajar College of Engineering, India

Grad: May 2014 | Percentage: 90.4%

## SKILLS

- Programming Languages: C, C++, Python, Perl, Java
- Tools: Ixia Explorer, Ixia Network, Ns3, Linux Traffic Control, Wireshark Packet Capture, pyATS, Jira, Jenkins, Gerrit, Git, Perforce, Bugzilla, Code Collaborator, Bitbucket
- Web Technologies: HTML5, JavaScript, J2EE
- Database: Oracle 9i, Mysql, DB2

## EXPERIENCE

**CISCO INC., SAN JOSE | SOFTWARE ENGINEER III (Feb 2019 - Present)**

- Working on Nexus 9k product on fixing issues in L2 layer features such as VLAN, L2 port, Port-channel, VPC, LLDP, CDP, Storm control, Consistency-checker, Mac address for Innovium platform and others.
- Worked single-handedly on developing a new feature of having or overriding Relay Agent information option (Option82) in DHCP Discover packets through a new CLI and REST API.
- Worked on integrating 10+ versions of SDK released by the platform team of Innovium.
- Worked with pyATS framework for developing Infra, feature and functionality test automation suites for L2 protocols.

**AKAMAI TECHNOLOGIES, MASSACHUSETTS | SOFTWARE ENGINEERING INTERN (May 2018 –Aug 2018)**

- Worked in the DNS Mapping functionality of Akamai.
- Developed a wrapper for Linux Traffic Control tool to configure networking behavior and mimic the behavior of a WLAN.
- Involved in the generation of Cycle Time Comparison Graphs of the processes in the Testnet and the Production.

**ARICENT, CHENNAI, INDIA | SENIOR SOFTWARE ENGINEER (July 2014 – July 2017)**

- Worked predominantly in Software development in Datacom domain (L2 and L3 protocols) in HP Procurve switches in Linux platform.
- Worked extensively with RIP, OSPF, BGP, IPV4, IPV6, VLAN, MAC, VRRP, TCP/IP, SNMP protocols.
- Worked on multiple Urgent and High priority customer issues and complex internally found defects.
- Awarded Extraordinary Performer and Excellent Performer during two consecutive years at Aricent for consistently achieving the goal and for delivering quality code in a timely manner.

**ARICENT, CHENNAI, INDIA | TRAINEE (Dec 2013 – June 2014)**

- Automated the testing of Ethernet Linear Protocol Switching (ELPS) protocol over Multi-Protocol Label Switching (MPLS) network with packet capture functionality.

**INDIAN INSTITUTE OF TECHNOLOGY, HYDERABAD | RESEARCH INTERN (May 2013 –July 2013)**

- Proposed an efficient SON based handover decision algorithm for LTE Femtocells for reducing handover delay, signaling cost and packet drop. This approach achieved 31.5% improvement in reducing handover delay.
- This work was done under the guidance of Dr.Bheemarjuna Tamma, Head of the Department, Computer Science, Indian Institute of Technology (IIT) Hyderabad, India.

## COURSEWORK

Analysis of Algorithms, Artificial Intelligence, Data Science Fundamental, Operating Systems, Theory of Database systems, Wireless and Mobile Networks, Data Mining concepts and techniques.

## PROJECTS

### CREATION OF SECURE GARBAGE FOLDER IN LINUX KERNEL | C

(Feb 2018 – May 2018)

Created a secure garbage folder in a Stackable filesystem environment. Deleted files will be moved to a special hidden folder. A provision was added to revert and to list the contents based on user permission. Process-based queues were implemented for handling the file encryption and compression when moving files to the trashbin asynchronously.

### IMPLEMENTATION OF A NEW LINUX SYSTEMCALL | C

(Jan 2018 – Feb 2018)

Created a Linux System call to deduplicate the contents of identical files. It takes multiple arguments depending on which identical bytes will be returned or partially matching contents will be written to an output file.

### TRACKING OF HUMAN LEG MOTION DURING EXERCISE | PYTHON

(Jan 2018 – Present)

Used Machine Learning to track the Leg movement of a person when exercising using a Magnetic strip and Magnetometer and its correctness is verified.

### ZILLOW'S HOME VALUE PREDICTION | PYTHON

(Sep 2017 – Nov 2017)

Completed a Data Science problem on Kaggle.com where the future sale prices of houses are predicted.

### AUTOMATIC BUILDING OF BOOK INDICES | PYTHON

(Sep 2017 – Dec 2017)

Built a tool that applies the principles of data science to automatically build back-of-the-book indices by analyzing the user given document. Achieved an accuracy of 85%.

### DETECTING THE MUSIC INSTRUMENTS IN A MUSIC PIECE | PYTHON

(Sep 2017 – Dec 2017)

Used Machine Learning on an Acoustic Sensing project to detect what instrument is played in a music piece. 13 different instruments including Human voice was accurately predicted with an accuracy of 71%.

### IMPROVING QOS IN MIPv6 NETWORK | C ++

(July 2012 – November 2012)

To improve the QoS in MIPv6 network, I studied the behavior of binding cache of nodes and its effects on QoS and proposed a method for reducing the packet loss by efficient load balancing among the nodes.

### TOPIC MODELLING | JAVA

(Jan 2011 – May 2011)

Developed a Content-based search mechanism to find the topic of the document. This project was sponsored by Honeywell Technology Solutions under HTS University Relations Program.

## ACHIEVEMENTS

- Recipient of IASc-INSA-NASI Summer Research Fellowship (2013).
- Won Best Paper Award for presenting a paper on Intelligent Transportation System using Mobile Wireless Sensor Networks in Kurushektra 13', a National level symposium conducted by Anna University, India.
- A Competent Table Tennis player. Won First runner-up in TamilNadu State Championship tournament 2010 in India.

## PUBLICATIONS

Efficient SON Handover Scheme for Enterprise Femtocell Networks. 2013 IEEE International Conference on Advanced Networks and Telecommunications Systems, ANTS 2013. 10.1109/ANTS.2013.6802870.

## VOLUNTEER EXPERIENCE AND LEADERSHIP

- Captain of women's Table Tennis team for 3 years (2012- 2014). Trained and managed a group of 16 students.
- Mentored high school girls as part of Girls Who Code program 2018 at Akamai. My role was to guide them, encouraging them to pursue a career in STEM field.