Curriculum Vitae

Srinivas Avireddy

CURRENT
STATUS

Software Engineer   **Jun '13 till date**
Core Payments Domain - PAYPAL
Under Graduate Student   **Jul '09 - May '13**
Department of Information Technology - MIT,   Anna University

RESEARCH
INTERESTS

My primary area of interest lies in **Cloud Computing** and **Web Security**. I am also interested in Machine Learning.

- Cloud Computing - (SAAS model)
- Cryptography and Web Security
- Heterogeneous Architectures
- Machine Learning Algorithms

RESEARCH
PROJECTS
INVOLVED

MITSAT-Automated Student Attendance Tracking   **Aug '12 to Dec '12**
Worked in developing an automated attendance Tracking system using cloud environment and wireless sensor networks which involved tracking information using Bluetooth and storing in a hybrid database comprising of MYSQL and NoSQL based MongoDB.

Framework for Heterogeneous Multi-core Systems   **Oct '12 to Apr'13**
Developed MR-API, a Comprehensive API framework for Heterogeneous Multi-core systems using Map reduce programming model which can be used to tap GPU resources in cloud environment for general purpose computing.

Filtering model to prevent DDOS Attacks in cloud   **Apr '12 to Jun'12**
Developed a timestamp based two level filtering model to prevent Distributed Denial of service attaks in Eucalyptus cloud environment. The first level involves an avalibilty check using TCP probing and the second level involves the timestamp query to check the validity of the user.

Randomized Encryption to prevent SQL injection   **Dec '11 to Apr'12**
Developed a lookup table based randomized encryption algorithm called **RANDOM4** which was used to encrypt database fields and database entries to prevent SQL injection attacks.

PUBLICATIONS

<u>**Presented and Co-authored**</u>

- **MR-API: A Comprehensive API Framework for Heterogeneous Multi--core Systems using Map Reduce Programming Model** Srinivas Avireddy, Sumalatha R, et.al., presented at Student Research Symposium of the 19th IEEE/ACM High Performance Computing Conference, **HiPC 2012**, Pune, India.

- **MITSAT-An automated student attendance tracking system using Bluetooth and EyeOS** Srinivas Avireddy, Varalakshmi Perumal et.al., presented at International Multi-Conference on Automation, Computing, Communication, Control and Compressed Sensing, **iMac4s 2013**, Kerala, India.

Co-authored

- **Random4: An Application Specific Randomized Encryption Algorithm to prevent SQL injection** Srinivas Avireddy, Varalakshmi Perumal et.al., published in the proceedings of 11th IEEE International Conference on Trust, Security and Privacy in Computing and Communications, **Trustcom 2012**, Liverpool, United Kingdom.

- **GAS: A Novel Grid Based Authentication System** Srinivas Avireddy et.al., published in the proceedings of 9th International Conference on Heterogeneous Networking for Quality,Reliability, Security and Robustness **Qshine 2013**, Greater Noida, India.

To be communicated

- **HMR - Comprehensive API framework for Parallel Algorithms** Srinivas Avireddy, Sumalatha R et.al., Submitted to the Journal of Information Science and Engineering **JISE**, 2013

TALKS AND LECTURES

- **MITSAT - An automated student attendance tracking system using Bluetooth and EyeOS** Srinivas Avireddy, Varalakshmi Perumal et.al Implementation was presented at International Multi Conference on Automation, Computing, Control, Communication and Compressed Sensing **iMac4s 2012**, Kerala, India, March 2013.

- **MR-API: A Comprehensive API Framework for Heterogeneous Multi–core Systems using Map Reduce Programming Model** The API working was demonstrated at **HiPC 2012**, Pune, India, December 2012.

- Presented a demo of MITSAT - An automated student attendance tracking system using Bluetooth and EyeOS on Technology Innovation Day hosted by CTDT, Anna University,Chennai, India, May 2013.

- Presented a demo of GAS - A Novel Grid based Authentication System in National Conference hosted by MIT, Anna University, Chennai, India, April 2012.

CURRENT PROJECT AT PAYPAL

Realtime Transaction Monitoring using PAYMON

Currently working as DJANGO developer for the development of Realtime Transaction Monitoring for Vendor Isolation team of Core Payments using PAYMON framework.

UG FINAL YEAR PROJECT

Heterogenous Cloud computing [Project funded by IEEE Madras section]

Final year project is aimed at developing an API framework for heterogeneous systems by integrating the features of both Hadoop and Aparapi to achieve the objective of executing data intensive map reduce on both CPU and GPGPUs of the nodes in the cloud to maximize resource utilization and throughput by exploiting the heterogeneity.

CERTIFICATION	Completed **Cisco Certified Network Associate** certification with score of 960/1000, May 2012.

CODING
EXPERIENCE

- Developed a clone of **DROPBOX** app as part of **Cloud Computing** project using C#, XML and MYSQL.
- Developed a web portal for e-Learning using PHP and MYSQL during my tenure as a web developer intern for the website **www.24X7onlinetutoring.com**.
- Designed a audio based web user interface using HTML, CSS and Javascript, for **Visually Challenged users** as part of the User Interface Design Project.
- Developed an graphical based encryption algorithm called **SAFE** to prevent Shoulder Surfing attack as part of the Cryptography project.
- Developed a web service to prevent XML Injection using C# as part of the Service Oriented Architecture Project.

COMPUTER
SKILLS

- **Programming Languages** - C, C++, C#, Java, Python
- **Databases** - Oracle 10g, MYSQL, MongoDB, Hbase
- **Scripting Languages** - HTML5, CSS, Javascript, Jquery, PHP, DJANGO
- **Cloud Computing Tools** - Hadoop, Eucalyptus, CloudSim
- **Simulators** - Network Simulator, Packet Tracer

ACADEMIC
QUALIFICATION

- **B.Tech, Information Technology**   **2009 - present**
  Anna University, Chennai
  First Class with **Distinction** (CGPA - 9.21)

- **Higher Secondary Education**   **2007 - 2009**
  Tamil Nadu Board of Higher Secondary Education
  SBOA Matric. Higher Secondary School,
  Anna Nagar, Chennai
  First Class with **Distinction** (Aggregate of 95.5%)

- **Secondary Education**   **2005 - 2007**
  TamilNadu Board of Secondary Education - Matriculation
  SBOA Matric. Higher Seconday School,
  Anna nagar, Chennai
  First Class with **Distinction** (Aggregate of 94.36%)

TRAININGS &
WORKSHOPS

- Tutorial on **Infiniband & High-Speed Ethernet for Dummies** by Prof. D.K.Panda Ohio state university at International Supercomputing Conference, Germany.
- Workshop on **High Performance Computing** conducted by IBM India at Madras Institute of Technology, Chennai, India, December 2011.
- Workshop on **Power Management in High end IBM Multi-core systems** by IBM India at Madras Institute of Technology, Chennai, India, March 2010.

HONORS AND
AWARDS

- Awarded the Best Innovative Project Award by CTDT,Anna University among the projects of all departments of Anna University, India, April 2013.
- Final year project proposal was accepted for funding under **IEEE student project grant scheme IEEE Madras Section**, India, December 2012.
- Awarded **Fellowship** to attend and present at the International High Performance Computing Conference **HiPC '12**, Pune, India, December 2012.
- Awarded Government of India Scholarship for the Complete 4 years of Under graduation for securing **Top 1 percentile** across the state in Tamilnadu State Board Examinations.
- Awarded a Medal of Honour for securing 100 % in Tamil Nadu State Government Examination for **Chemistry**.
- Secured **1st Place in Research Idea Presentation event** in a National Level Technical Symposium hosted by College of Engineering Guindy - Anna University.
- Secured **1st Place in Paper Presentation event** in a National Level Technical Symposium hosted by Anna University.

MEMBERSHIPS

- IEEE Student member #92309993
- IEEE Computer Society member
- Member of European Alliance for Innovation
- Member of Springer Link
- Information Technology Association of MIT

EXTRA
CURRICULAR
ACTIVITIES

- Worked as a Volunteer in National Service Scheme to conduct Blood Donation Camps and Global Warming Awareness rallies(2009-2011).
- Worked as a Volunteer in ICRTIT 2012, a International IEEE conference on Recent Trends in IT hosted by MIT,Anna University.
- Jointly organized Samhita'12, a national level technical symposium hosted by MIT, Anna University.

CONTACT
INFORMATION

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REFERENCES

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