

# Russi Chatterjee

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## SYNOPSIS

Engineer with about four years of experience in a wide spectrum of software, from operating systems and embedded software to large scale distributed web backend and analytics systems.

## EXPERIENCE IN

Programming languages	Python, Scala, R, C, Javascript. Also worked with Lua, C++, Java, $\text{\LaTeX}$
Reactive frameworks	Node.js, pyev and gevent event-loops, Akka the actor framework for concurrency, Celery the distributed realtime task queue
Web backend frameworks	Express, Django
Data buses	RabbitMQ, ZeroMQ
Data stores	PostgreSQL, Cassandra (multi-datacenter), Redis (high availability cluster), CouchDB, MongoDB
Distributed computing and networks	Apache Storm, Apache Spark, Zigbee/IEEE 802.15.4 distributed network stack
Statistics	Time series analysis, data mining, clustering, causal modelling etc, using Pandas, Numpy, Scipy and R (season, dtw, TTR, zoo, Rserve, topicmodels, rjags, randomForest, RSNNS, etc)
Operating systems kernels	Linux, uITron
Processor Architectures	ARMv7, Tensilica XTensa, 8051 (TI cc2531), RenesasM16C
Frontend libraries	HTML, CSS, JQuery, D3, NVD3 graphing library, Backbone, Bootstrap, Jade templating, underscore/lodash etc
Programming patterns	Reactive patterns, SOA, parallelism and concurrency models, Scaling, Map-Reduce, OOP, Functional programming

## EDUCATION

**B.Tech in Computer Science, NIT Rourkela**

**2006-2010**

- Interested in operating systems, distributed computing and image processing
- Built a distributed high performance cluster based on Debian, openMOSIX and openMPI
- Internship on robust watermarking techniques using Haar wavelets (ISI Calcutta)
- Undergraduate thesis on Computer Vision - Image segmentation <http://ethesis.nitrkl.ac.in/1616/>

## WORK EXPERIENCE

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### Consultant SSE, Global StealthCo., Pondicherry, India

(Jul 2014 – Jan 2015)

Description	Distributed backend and analytics applications
Work done	<ul style="list-style-type: none"><li>• Designed backend data paths</li><li>• Developed Trending system to detect trends in streaming data</li><li>• Developed Event detection system from streaming data (time series mining)</li></ul>

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### Senior Software Engineer, MagnetWorks Bangalore, India

(Oct 2013 – Jun 2014)

Description	Embedded, Web frontend, backend, analytics, distributed sensor networks, whatever it took.
Work done	<ul style="list-style-type: none"><li>• Designed and developed API backend</li><li>• Designed and developed web application</li><li>• Designed and developed analytics, time series mining and alerts system</li><li>• Also worked on zigbee based embedded sensor communication system</li></ul>

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### Firmware Engineer, Toshiba, Bangalore, India & Ofuna, Japan

(Feb 2013 – Aug 2013)

Description	Real-Time Operating Systems board support package, more on the assembly language side.
Work done	<ul style="list-style-type: none"><li>• Implemented interrupt and exceptions bindings for uTron OS</li><li>• Implemented the ABI (application binary interface)</li></ul>

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### Project Engineer, Wipro Technologies, Bangalore, India

(Feb 2011 – Feb 2013)

Description	Worked on software for embedded platforms for automotive electronic systems
Work done	<ul style="list-style-type: none"><li>• Developed Linux device driver for LVDS SerDes (Maxim 9240)</li><li>• Developed a bootloader and remote flashing/updating solution</li><li>• Developed device driver for LIN data bus</li><li>• Inter-processor communication over SPI</li><li>• Integration of TomTom navigation unit</li></ul>

## RECOGNITION

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- Wipro PES (Product Engineering Services) award for “Best Campus Recruit”.
  - Holder of “Outstanding performance” rating throughout (highest possible in Wipro).
  - “Star of the ODC” award for “Significant Contribution in MY14 Mazda project”.
  - “Star of the ODC” award for “Significant Contribution in TomTom project”.