Russi Chatterjee

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SYNOPSIS

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

EXPERTISE

Programming languages	Python, Scala, R, C, Javascipt. Also worked with Lua, C++, Java
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
Messaging systems and 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 protocol
Analytics	Time series analysis, data mining, online and batch statistical methods
Operating systems kernels	Linux, uITron
Frontend libraries	HTML, CSS, Jquery, D3, NVD3 graphing library, Backbone, Bootstrap, Jade templating, underscore/lodash etc
Programming patterns	Reactive and event-loop based patterns, Service-oriented architectures, scaling via hashed key based sharding, partial indexing, mapreduce and functional programming
Software processes	SCRUM, Agile

EDUCATION

B.Tech in Computer Science, NIT Rourkela   **2006-2010**

- Interested in Linux, operating systems, distributed computing and image processing
- Did an internship at the Indian Statistical Institute on image watermarking.
- Did thesis work on Computer Vision - Image segmentation

WORK EXPERIENCE

Senior Software Engineer, Global StealthCo., Pondicherry, India   (Jul 2014 – Present)

Description	Distributed backend and analytics applications
Work done	Designing of backend data paths Trending system to detect trends in streaming data Event detection system from streaming data (time series mining)
Technologies used	Languages: Scala/Akka, Python, RabbitMQ Databases: Cassandra, Redis Distributed computing: Apache Storm Algorithm prototyping: R

Senior Software Engineer, MagnetWorks Bangalore, India   (Oct 2013 – Jun 2014)

Description	Embedded, Web frontend, backend, analytics, distributed sensor networks, whatever it took. Involved in all aspects including architecting, design and development Managed a team of 3
Work done	Designed and developed most of the backend Worked on a large chunk of web frontend and design Managed the entire analytics, time series mining and alerts system Zigbee based distributed sensor networks
Technologies used	Languages: Backend: Python, Django, rabbitmq-celery, pandas, numpy, Node.js, Express, request.js, async Databases: Postgresql, CouchDB, Redis Statistical software: R and packages for r such as Rserve, TTR, dtw, zoo, rle, etc Frontend: HTML, CSS, JS, Jquery, backbone, bootstrap, Jade, underscore, SVG, D3, NVD3, etc

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	Implemented the interrupt and exceptions bindings for uITron OS for the Tensilica processor architecture Implemented the ABI (application binary interface)
Technologies used	Programming Languages: C, Python Assembly Languages: ARMv7, Tensilica uITron, a Real-time Operating System

Project Engineer, Wipro Technologies, Bangalore, India　　　　　**(Feb 2011 – Feb 2013)**

Description	Worked on software for embedded platforms for automotive electronic systems
Work done	Linux device driver for UART over LVDS SerDes (Maxim 9240)
	Developed a bootloader and remote flashing/updating solution for 16-bit microcontroller
	Developed device driver for LIN and handled integration of Vector CAN driver on Renesas M16C
	Inter-processor communication over SPI - Renesas M16C microcontroller and Freescale ARM Cortex A9
	Application for interfacing with Pandora radio over bluetooth (AVRCP)
	Integration of Nuance Natural Language Processing engine and arbitration logic for voice commands
	Integration of TomTom navigation system
Technologies used	Programming Languages: C / embedded C, POSIX C
	uITron, the real-time OS
	Linux (the kernel)

RECOGNITION

- 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".

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OTHER INTERESTS

Playing bass guitar
Listening to a wide variety of music - Last.fm
Reading classics and existentialist philosophy - ixaxaar@Shelfari