

# Marat Garafutdinov

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## About

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Seasoned engineer with many years of software development, developer operations and cluster operations experience.

I have extensive real-world business experience and an excellent track record in designing and implementing complex software solutions with emphasis on customer satisfaction, quality and timely delivery.

## Skills

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- C/C++, Golang, JavaScript, Ruby, Python
- Managing and deploying Kubernetes clusters
- Kubernetes ecosystem tools
- CI/CD systems and tools
- 17+ years of software development and program management experience.

## Experience

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### Principal Engineer at Samsung SDS America, Inc

February 2021 – present

- Designed and implemented the Cloud Native Computing Team's infrastructure-as-code pipeline
- Designed and implemented various backend services for Samsung SDSA's Machine Learning Portal
- Contributed heavily to Samsung SDSA's Machine Learning Portal frontend

### Senior Staff Engineer at Samsung SDS America, Inc

March 2018 – February 2021

- Designed and implemented the Cloud Native Computing Team's Jenkins 2.0 CI/CD pipeline stack, complete with tool helm charts, shared workflow code, secret management, documentation and deployment scripts
- Contributed to various open-source projects

### Staff Engineer at Samsung SDS America, Inc

May 2015 – March 2018

- Designed and implemented an in-house solution for deploying Kubernetes clusters on various public cloud providers
- Developed and contributed to various Kubernetes ecosystem tools
- Developed Kubernetes Helm charts for a variety of opens source and customer applications
- Worked on making many business-critical legacy customer applications work in Kubernetes
- Worked on customer CI/CD pipelines

### DevOps engineer at MTN Satellite Communications.

July 2013 – October 2014

- Designed and implemented test and integration tools for MTN CI pipeline.

- Created a set of scripts/utilities for modeling a MTN ShipCloud™ in AWS.
- Improved reliability, speed and scalability of MTN CI/CD pipeline.
- Developed and improved a variety of internal Chef cookbooks.

**Android Apps Developer at MTN Satellite Communications.**

**February 2013 – July 2013**

- Designed and implemented client-customizable Android front-ends for a variety of MTN on-ship services.
- Designed and implemented an rspec-based functional testing framework for the MTN on-ship application suite.
- Designed and implemented a concurrency and stress testing framework for the MTN on-ship application suite.

**Consultant at StarSightings Inc.**

**October 2010 – Present**

- Created first version of [StarSightings for Android](#).

**Software Design Engineer at Microsoft.**

**July 2012 – February 2013**

- Implemented new features of Ford SYNCII project, including HMI and middle layer.
- Did sustained engineering for Ford SYNC project, including field problem investigations and back-porting of features from Ford SYNC II.
- Worked directly with Ford and Elektrobit employees to investigate and resolve field bug reports.

**Co-Founder, Engineering at TravellingWave Inc.**

**May 2007 - July 2012**

TravellingWave develops multimodal interfaces for entering speech into mobile devices. Using a combination of speech recognition and text prediction dubbed “VoicePredict,” TravellingWave’s technology enhances any kind of text input mechanism and allows for fast, easy and accurate data entry.

- Performed engineering duties throughout all phases of software development lifecycle of VoicePredict SDK for ARM/X86 devices and SMS/Email/Facebook/Twitter client for Windows Mobile 6.x.
- Drove development effort from the start, including design and time estimations including design, time estimations and most of the coding.
- Contributed to and implemented interfaces for TravellingWave proprietary noise filtering algorithm.
- Designed and implemented instrumentation system for gathering anonymous user feedback.
- Designed and implemented VoicePredict SMS/Email/Facebook/Twitter client for Windows Mobile 6.x.
- Designed, implemented and maintained company's website.

**Software Design Engineer at Cisco Systems**

**July 2010 – December 2011**

- Developed 1.0 version of Connect Express - an iOS/Android application for controlling a wide range of Cisco/Linksys WiFi routers remotely. For [iOS](#) and [Android](#).
- Developed a software/hardware installer application for an upcoming home networking product on OS X and Windows platforms.
- Designed and implemented a localization/internationalization system for Cisco's upcoming home networking product.
- Worked on parts of Webkit/QT based UI for various product components
- Maintained build system for the product.

**Software Design Engineer at Intrinsic Software, USA****May 2006 – May 2007**

Intrinsic Software's Soleus is world's first Microsoft Windows Embedded CE-based mobile handset platform, featuring pre-integrated hardware, software and telephony elements.

- Designed and developed from the ground up a full-featured custom shell for Soleus platform, with support for notifications, custom/animated icons, configurable "today" screen, multiple page layouts and tight integration with other system components.
- Worked on various other platform applications, such as calendar, alarm notifications, etc.

**Software Design Engineer at Microsoft****September 2005 – May 2006**

- Ported and enhanced an existing test harness for the Windows Vista Tablet Edition.
- Worked on the design and development of a web-based system for running ink tests remotely.

**Software Design Engineer at Conversay Inc.****April 2001 – September 2005**

- Designed and implemented Conversay's speech enabled forms automation software for Windows Desktop, including creating functional and design specifications.
- Managed and led two offshore teams developing the Windows Mobile version of the forms automation client and the XML form builder.
- Designed and developed proofs of concept and pilot projects for General Electric Power Division.
- Ported parts of Conversay's speech recognition SDK to MontaVista HardHat Linux, for deployment on a portable GPS device. Contributed to Conversay's speech recognition SDK and engine development.
- Developed parts of Conversay's suite of PIM applications.
- Designed and developed internationalization and localization components for deployment on Samsung phone ROMs.

**Configuration Management Engineer at Conversay Inc.****September 2000 – April 2001**

- Designed and developed multiple CM tools, supervised VSS configuration and daily builds.
- Helped design, implement and manage Conversay's proprietary defect tracking tool.

**Education and Achievements**

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University of Washington (September 1998 – November 2001): Applied and Computational Mathematical Sciences (Applied Math, Statistics, Computer Science) program, incomplete.

Patents: Multimodal interface for input of text (US8571862B2). Detecting segments of speech from an audio stream (US8645131B2).