



# Kaarthik Rao Bekal Radhakrishna

Software Developer

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karthikraobr

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## Competencies

Go • C# • Git

SQL • ~~LaTeX~~ • Java • JS

Nim • Python • Microservices • Alexa

## Languages

English

German

## Interests

Automobiles, Javascript, Travelling and Food.

## Education

Oct 2015 - Present **MSc., Computer Science**

University of Paderborn, Germany

Sept 2007 - July 2011 **BE., Information Science**

Visvesvaraya Technological University, India

## Experience

Mar 2016 - Dec 2017 **Student Research Assistant**

Diebold Nixdorf, Germany

- Developer in the Research & Innovation department.
- Co-developed a Go wrapper for NXP's NFC Reader Library.
- Built a REST wrapper for Shared libraries using Nim.
- Built an Amazon Alexa skill in Go which controls TV screens and dispenses cash from an ATM.
- Fixed bugs in the implementation of a proprietary encryption algorithm.
- **Stack:** Go, Nim, MQTT.

July 2011 - Sept 2015 **.Net Developer**

Sonata Software, India

- Co-developed a multi-tenant document management system which facilitated tag-based document access along with search capabilities.
- Designed and developed a solution which filters rules based on certain combinations, from a collection of more than 500,000 rules.
- Migrated a data-intensive commercial web application from jQuery to AngularJS.
- **Stack:** C#, Windows Azure, LINQ, MVC3/4, ASP.NET, ADO.NET, Entity Framework, jQuery, AngularJS CSS, HTML, solr.

## Research

August 2017 - March 2018 **Incremental Support of Static Analysis Code**

Fraunhofer IEM, Germany

- Master Thesis
- Extend the Soot static analysis framework to support incremental updates to the analysis code.
- Design and implement a novel method to incrementally update the analysis when it undergoes incremental changes.
- **Stack:** Java

## Projects

- **VisuFlow** - An Eclipse plugin for developing Static Analyses using the Soot static analysis framework. A [technical paper](#) was published based on this tool.  
[github.com/VisuFlow](https://github.com/VisuFlow)
- **go-nxprd** - GO wrapper for NXP's NFC Reader Library for the Raspberry Pi.  
[github.com/hohlerde/go-nxprd](https://github.com/hohlerde/go-nxprd)
- **gAlexa** - An Alexa skill developed in Go, used for controlling TV screens and dispensing cash from an ATM, using the MQTT framework. Works in conjunction with a client.
- **nim2Rest** - A REST wrapper for shared libraries built using Nim.  
[github.com/karthikraobr/nim2Rest](https://github.com/karthikraobr/nim2Rest)

## Achievements

June 2016 - Present **Advisor**

Walnuts, India

- One of the tech advisors and developer of the CMS system.