

# Abhishek Bagchi

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## Work Experience

2020-Present	<b>Senior Engineer System Modelling</b> <b>ARM Ltd</b> Created a test infrastructure for systems modelling and analysis ( <b>Python</b> ) Implemented statistics gathering for a set of performance models ( <b>C++</b> )
2017-2020	<b>Software Engineer</b> <b>ARM Ltd</b> Created performance models for AMBA AHB components ( <b>C++</b> ) Modelled and analysed the performance of future system architectures ( <b>C++</b> , <b>Python</b> ) Modelled and performed initial investigations on NoC architectures ( <b>C++</b> , <b>Python</b> ) Created signal level to AMBA TML bridges for AMBA protocols ( <b>C++</b> )
2015-2017	<b>Graduate Software Engineer</b> <b>ARM Ltd</b> Modelled and performed initial investigations on NoC architectures ( <b>C++</b> , <b>Python</b> ) Modelled master ports for CPU L3 caches ( <b>C++</b> ) Modelled and investigated power management schemes in the linux kernel( <b>C++</b> )
2014	<b>Student Trainee</b> <b>Samsung R&amp;D Institute India</b> Created a tool to comprehensively capture and present Android memory allocations and deallocations to developers( <b>Java</b> , <b>C++</b> , <b>Qt</b> ) Bangalore, India
2012	<b>Intern</b> <b>Cologne University Of Applied Sciences</b> Worked on a module for SkETCH3D( <a href="http://cg.web.th-koeln.de/sketch3d/">cg.web.th-koeln.de/sketch3d/</a> ) ( <b>Java</b> , <b>OpenCV</b> , <b>ImageJ</b> ) Cologne, Germany

## Education

2014-2015	<b>Master of Sciences In Advanced Computing - Machine Learning, Data Mining and High Performance Computing</b> University of Bristol
2010-2014	<b>Bachelor of Engineering - Computer Science and Engineering</b> Manipal Institute of Technology

## Master's Thesis

Title	<b>Aligning video segments for appearance based navigation</b>
Summary	The research aimed to tackle the problem of appearance based navigation. The intention was to investigate the suitability/practicality of navigation relying only on visual cues, and develop a prototype for a navigation system. Prototyped using Qt, C++ and OpenCV.

## Projects

- **Create a tool to comprehensively capture Android memory allocations and deallocations**

Samsung R&D Institute India - Bangalore

The project involved modifying the Android(4.2) source to allow logging memory allocations and deallocations, and creating a desktop application (using Qt and C++) to capture and visualize the memory data from those logs.

- **SkEtn3D**

Cologne University Of Applied Sciences

The given task was to develop a module which would be given drawn natural sketches as input and convert them to spline curves. The technologies used were Java, OpenCV and ImageJ.

- **KVDB**

Personal project. Key value data store written in Golang. ([github.com/AbhishekBagchi/kvdb](https://github.com/AbhishekBagchi/kvdb))

- **Pastebin-go**

Personal project. Pastebin server written in Golang. ([github.com/AbhishekBagchi/pastebin-go](https://github.com/AbhishekBagchi/pastebin-go))

## Computer Skills

- **Programming Languages:** C++ (proficient), Python 2.7 (Intermediate), Go (Basics), JAVA (Basics), C (Basics)
- **Frameworks/Platforms:** GUI development using Qt framework for C++ , Application and Web Development using C# on the .NET framework (prior experience)

## Volunteer Activities

- **Mentor in the EES Applied program**

**Organisation:** EDT (The Engineering Development Trust)

Mentored a group of 16-18 year old students in designing and prototyping projects for the blind set out by the Royal National Institute of Blind People (RNIB).

## Organizational/Management Activities

Board member of the students body, Institution of Engineers-Computer Science and Engineering, in capacity of Technical Head for the year 2012-13, responsible for providing technical direction while managing a team of over 90 students.