

Abhishek Bagchi

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Work Experience

2020-Present	Senior Engineer System Modelling ARM Ltd Performance modelling and initial investigation of future system architectures (C++) Creating and maintaining a test infrastructure for systems modelling and analysis (Python) Implementing and maintaining the modelling statistics infrastructure (C++)
2017-2020	Software Engineer ARM Ltd Modelling of AMBA AHB components (C++) System level performance modelling and investigation (C++, Python) Performance modelling and initial investigation of NoC architectures (C++) Signal level to AMBA TML bridges for AMBA protocols (C++)
2015-2017	Graduate Software Engineer ARM Ltd Performance modelling and initial investigation of NoC architectures (C++, Python) Performance modelling of master ports for L3 caches (C++) Power management investigations using Gem5 (C++)
2014	Student Trainee Samsung R&D Institute India Create a tool to comprehensively capture Android memory allocations and deallocations (Java, C++, Qt) Bangalore, India
2012	Intern Cologne University Of Applied Sciences Sketch3D (Java, OpenCV, ImageJ) Cologne, Germany

Education

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

Master's Thesis

Title	Aligning video segments for appearance based navigation
Summary	This thesis 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 and OpenCV.

Projects

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

Samsung R&D Institute India - Bangalore

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

- **SkEtch3D**

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 project was done using Java, OpenCV and ImageJ.

- **Simulate a superscalar processor**

University of Bristol

Course project as a part of the course Advanced Computer Architecture at the University of Bristol. The work involved designing and implementing a simulator for a superscalar processor. Implemented in Ada.

- **KVDB**

Personal project

Key value data store written in Golang. (github.com/AbhishekBagchi/kvdb)

- **Pastebin-go**

Personal project

Pastebin server written in Golang. (<https://github.com/AbhishekBagchi/pastebin-go>)

Volunteer Activities

- **Mentor in the program EES Applied**

Organisation: EDT (The Engineering Development Trust)

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

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)

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.