

Abhishek Bagchi

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Work Experience

2020-Present	Senior Engineer System Modelling ARM Ltd Performance analysis of Arm IP in the context of a full system (C++ , Python) Full system performance analysis using cycle approximate performance models (C++ , Python) Implemented signal level(RTL) to AMBA CHI TLM bridges (C++) Statistics and monitoring for performance models (C++)
2017-2020	Software Engineer ARM Ltd Performance modelling of AMBA AHB components (C++) Modelling and analysis of next generation example Arm based systems (C++ , Python) Modelling and analysis of next generation NoC architectures (C++ , Python) Implemented signal level to AMBA TLM bridges for AMBA CHI and AHB protocols (C++)
2015-2017	Graduate Software Engineer ARM Ltd Modelling a generic AXI4 interconnect(C++ , Python) Modelled initiator ports for CPU L3 caches (C++) Investigate the impact of novel power management schemes for the Linux kernel(C++)
2014	Student Trainee Samsung R&D Institute India Created a tool to comprehensively monitor memory allocations and deallocations in Android. (Java , C++ , Qt) Bangalore, India
2012	Intern Cologne University Of Applied Sciences Worked on a module for Sketch3D(cg.web.th-koeln.de/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	The research aimed to tackle the problem of appearance based navigation. The aim 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.

- **SkEtc3D**

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)

- **Pastebin-go**

Personal project. Pastebin server written in Golang. Uses KVDB as it's datastore. (github.com/AbhishekBagchi/pastebin-go)

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).

- **Application development for the Cambridge Science Center**

Organisation: Cambridge Science Center

Developed a desktop application for the Cambridge Science Center to be used in one of their interactive exhibitions

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.