

Romit Dasgupta

Principal Software Engineer

Redmond, WA, USA dasgupta.romit@outlook.com

25 years of experience in software development, seeking Senior Staff and Principal level roles.

CORE COMPETENCIES

System Software, Cloud infrastructure, virtualization (GPU), embedded systems, kernel development. Experience spanning from low-level embedded systems, middleware to cloud applications.

C

C++

Python

JavaScript

Rust

Java

Linux Kernel

Virtualization (GPU)

gRPC

PROFESSIONAL EXPERIENCE

Apple

Sep 2021 - Present

Principal/Staff Software Engineer (L5)

Seattle, WA

System and infrastructure software at Apple Cloud Services focused on virtualization (GPU). Enabled new hardware solutions for data center infrastructure.

- System software for custom data center hardware
- Prototyping and demonstrating solutions on novel hardware
- Technical presentation to senior management of prototypes leading up to program level approval and subsequent deployment
- Design and development of new infrastructure solutions for hardware and software

C++

Python

Rust

Java

gRPC

Virtualization

Google

Oct 2016 - Sep 2021

Senior Software Engineer

Kirkland, WA

- Led design of software interface for machine automation in data center operations
- Developed Android on Google Cloud VM instances with guest-host communication
- Built complete end-to-end BLE-based asset tracking device
- Solved critical issues from BLE bandwidth congestion
- Led microcontroller selection for next-gen products with multi-year battery life

C

C++

Virtualization

Python

Java

Microcontrollers

gRPC

Microsoft

Nov 2013 - Oct 2016

Principal Software Engineer

Redmond, WA

- Owned and delivered 'Deep Sleep' power management feature for Windows 10
- Explored new processor architectures for Microsoft Surface devices
- Added authentication between microservices for Azure Media Streaming

C

C++

C#

Python

Apple

Feb 2010 - Nov 2013

Software Engineer (L4)

Cupertino, CA

- Led iOS kernel-level power management (iPhone, iPad, Apple TV)
- Key involvement in power management features design and implementation
- Collaborated with Silicon design engineers
- Worked across layers from ROM code to driver and instrumentation software

C

C++

Python

Oscilloscope

Power analyzers

Hardware debuggers

Texas Instruments

Jul 2006 - Jan 2010

Lead Software Engineer

Bangalore, India

- Lead member of OMAP power management software team (team size 6)
- Contributor in USB 3.0 and USB 3.1 specification
- Contributed mainline Linux kernel patches
- Developed Host/Gadget OTG USB driver on PrOS

C

Linux Kernel

PrOS

Microsoft

Sep 2005 - Apr 2006

Software Developer

Hyderabad, India

- Ported kernel space embedded database engine from WinCE 5.0 to WinCE 6.0
- Delivered solution within 4 months

C++

Windows CE

Sun Microsystems

Jan 2004 - Aug 2005

Member Technical Staff

Bangalore, India

- OS-level system validation of SUN Sparc and x64 servers
- Verified DTLB cache for Sparc under Linux and Solaris
- Wrote kernel driver to enable ECC in DRAM controller

C

Cisco Systems

Oct 2000 - Dec 2001

Software Engineer

Bangalore, India

- Control plane of Cisco Terabit routers
- Implemented installation and rollback features of software package management

C

QNX

RPM

Motorola

Software Engineer

Aug 1999 - Oct 2000

Bangalore, India

- EDA Tools group of the VLSI division
- Ported layout tool from C to Java
- Added Genetic-Algorithm based Optimization module

C

Java

Clearcase

Sankhya Technologies

Software Engineer

Nov 1998 - Aug 1999

Bangalore, India

- Java compiler and runtime evaluation team
- Wrote tests for www.nullstone.com
- Found and reported optimizer bug in Visual J++

Java

C

EDUCATION

National University of Singapore

2002 - 2003

Masters in Embedded Systems

Full scholarship from NUS. Joint masters degree with TU/Eindhoven.

College of Engineering, Guindy

1994 - 1998

B.E. Computer Science & Engineering