

## CAREER PROFILE

Dwaipayan (Dwai) Banerjee is a full stack Architect, recognized as an expert with proven leadership capabilities. He is equally adept at building the Architectural Roadmap and/or Product Component Design and Layering, leading architecture teams; creating and implementing time boxed IT strategy including mission critical API Strategies, cloud strategies for large and medium businesses as well as build and lead closely knit, high performing engineering teams/labs from ideation, inception to completion. Being a patterns expert, Dwai can fast assist in pinpointing and establishing specific reusable patterns and easy maintainable implementation of the same, drastically bring market churn via rapid innovations in existing product lines for a profitable and customer/consumer centric industry service. For more than seventeen years, he has successfully created and implemented end to end innovative products and solutions for various initiatives across the globe. He has also built and mentored high performing cross cultural teams across the globe and especially loves to build distributed teams into a motivated engineering force. He loves wearing numerous hats and has also been instrumental as a seasoned negotiator, insightful Solution Architect/Product Manager and consensus builder, in initiating numerous high value transformational solutions/Feature-rich Products across the globe. Dwai is an elegant Developer skilled in multiple languages with specific interests in Massively Distributed systems, Large scale immutable HPC and latest GPU topology creation and roll out on major cloud service providers, full stack Virtualized MicroServices, Optimization, automation and subsequent value added commercialization of the same. Dwai believes in open source



## **Dwai Banerjee**

Senior Director, Systems  
Architect, Full Stack  
Developer - Lives in The  
Netherlands

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## EXPERIENCES

### **Senior Solution Director**

May, 2017 to Present

HCL Technologies, The Netherlands and EMEA

Public/Private Cloud enablement, Microservices on immutable infrastructures, container standards/implementations for European conglomerates. HPC/GPU compute fabrics for customers across the world.

### **Cloud Solution Architect**

January, 2016 to April, 2017

Microsoft, The Netherlands and Seattle, United States

Created and maintained Azure github repositories for K80 (GK210 Duo) GPU Compute Auto Linux clusters for CUDA non graphical apps. HPC Big computes RDMA/IB Auto linux clusters for Intel MPI on Azure. These are immutable, intelligent compute grids with nvdia docker options and configurable soft RAID0. Created and maintained Azure github repository for M60 Graphical 3D Apps over PColP with latest Windows NVIDIA Azure Skus. Maintained the Docker for Azure with OMS (Operational Management Suite) repository with 17.0x-CE for monitoring the dockerized cloud infrastructure and first put up the automated Docker Datacenter on the Engine 1.13.x Private beta on a public cloud (Azure). Explore the repositories in the github media link with the pinned repositories @ <https://github.com/dwaiba> (<https://github.com/dwaiba>).

### **Principal, Solution Architecture**

August, 2015 to November, 2015

Exact Software, Delft, The Netherlands

R&D on future enabling Exact product portfolio.

### **Senior Consultant**

February 2013 to July, 2015

Enable-U B.V., The Netherlands and Africa

Governance, Integration, Security, Appliances, Registry, Cloud, API management, product dev, Nederlandse overheid (Dutch Government).

### **Domain Solution Architect**

October, 2011 to January, 2013

## EDUCATION

### **Bachelor of Engineering**

National Institute of  
Technology, India

1997 - 2001

Canon Europa N.V., The Netherlands

Architect for Integration and Data @ Canon Europa. Design authority for Integration, data and B2B. Designing, building, implementing and managing the Canon landscape in WebSphere, Informatica, Oracle SOA Suite, virtual Infrastructure. Establishing DevOps and automation/scaling for Middleware for platform stabilization. Building the Centre Of Excellence.

### **Technical Architect**

April, 2009 to October, 2011

TMNS B.V., The Netherlands, Switzerland

Worked on Enterprise Architecture, open systems, Oracle, WebSphere, TIBCO, Progress Sonic, Apama, Mule, JBoss, Apache projects. Consulted, designed and developed for various Dutch and Swiss businesses in the SOA, BPM and CEP space. Architected and programmed a successful CEP based Automated online Ad optimization platform. Set up large, high performing and scalable middleware infrastructure especially using VMWare, Amazon EC2 and virtualization techniques. Defined roadmaps for autonomic computing and implemented full scale AWS solutions.

### **Technical Architect**

June, 2007 to February, 2009

HCL Technologies, India and across the world.

Worked primarily with Cisco AON (Application-Oriented Network), product enhancements, SaaS gateways and other solutions. CISCO AON is a network-embedded/ appliance based middleware. Led a team of developers. We developed some of the first Enterprise class SaaS device connectors. Defined end to end detailed transformation solutions and laid out numerous successful Middleware product choices / implementations for a large range of customers around the world using varied stacks from opensource ESBs, Integration appliances to Commercial SOA stacks. Built a successful SOA Governance model for the Insurance and Investments division of a large British banking conglomerate.

### **Senior Member Technical Staff**

April, 2006 to June, 2007

Oracle Server Technologies, India.

Oracle's SOA Suite 10.1.3.x and Fabric (11g) Dev team.

**Engineer**

November, 2003 to April, 2006

IBM, India and the across the world.

Worked with almost all products of the WebSphere stack, large AIX base setups, developing and consulting for various customers across the globe.

**Developer**

July, 2003 to October, 2003

Ontrack Systems Ltd., Calcutta, India

Developer of an end to end Distributed Logistics systems for Japanese and British customers.

**C++/Web developer**

2001 to July, 2003

Various, Pan Indian sub-continent.

Worked as a java/c++/web programmer and linux administrator.

## ■ PROJECTS

Some Github projects

Azure Big compute (<https://aka.ms/azurebigcompute>) - GPU Sku usage for Ubuntu and CentOS, Standard Open Source Scheduler Deployments for HPC Skus for CentOS HPC with OMS. Latest Docker CE and nvidia-docker present in all. Spin up immutable automated clusters from headless mirror @ <https://github.com/cloudgear-io/azure-bigcompute> (<https://github.com/cloudgear-io/azure-bigcompute>) for running your DNN Toolkits at scale

Visualization GPU Clusters (<https://aka.ms/accessgpu>) - Immutable Cluster creation for M60 Visualization GPUs in the cloud for Graphical Apps VDI

Immutable Clusters for Docker CE overlay (<https://github.com/Azure/azure-docker4azureoms>) - Docker CE Overlay for Azure immutable scalable cluster provisioning with Monitoring

Docker Datacenter overlay with OMS Monitoring (<https://github.com/dwaiba/dockerddcoms>) - Docker datacenter component provisioning with scalable immutable clusters and monitoring. Also created the first provisioning repo for Docker Datacenter private beta.

## SKILLS & PROFICIENCY

Intel Xeon Phi Coprocessors, Intel Parallel Studio XE, ITAC, Intel Lustre, GlusterFS, Mellanox 6th Generation Device Drivers, DAPL, Infiniband, RoCEv2, Intel Compilers, Intel MPI, LINPACK, IMB and various other benchmarking, MPI 2.2/3.0/3.1, NUMA, mpicc/mpiicc/icc/ifort, CUDA/CUDAnn, OFED, Open MPI, Torque (Maui/MOAB), SLURM, NVIDIA DIGITS, Toolkits like CNTK, Caffe2, Keras and Tensorflow, nvidia-docker



C/C++, Shell, Python, Go, node.js, Java EE, Spring Boot, Git, Gerrit



Linux, UNIX, Fedora, RHEL, CentOS, Ubuntu, Custom Kernels, AIX, HP-UX and various other flavours



Cloud overlays, Google Cloud, AWS, Microsoft Azure, Digital Ocean, IBM Bluemix, CloudFoundry, Full scale Templatized deployable immutable cloud solutions, CLIs and Cloud APIs, Scaling, IaaS Clusters, Various PaaS on CSPs



API Management, API Security, API Design, node-red, netflix spring boot, Loopback, 3scale, WS02, Open Source API Management, Keycloak, CA Layer7, IDM Stacks



Hypervisors, Microvisors, KVM, Hyper-V, VMWare, vagrant, Hashicorp tools



Container Management Platforms, Kubernetes/Heptio/GCE, Docker Data Center with Universal Control Plane, Swarm Mode, Rancher, rkt, oci, containerd, etcd, zookeeper, Mesosphere, docker plugins, Docker CE, Red hat Openshift, Registries, container pipelines, Jenkins, TeamCity, VSTS, Various CLIs and APIs.



Middleware and ESB, WebSphere Stack and topologies, WebSphere ESB, Oracle SOA Suite components, JBoss Community and EAP components, Fuse, Mule distributed, Websphere MQ, AMQP, Event Hubs, Software AG Apama Event Monitors



HTML5/CSS3, Javascript, Ruby, Erlang, Perl, SQL, EsqL, Various Script frameworks like Apama Event Monitoring Scripts



**DB2, Oracle RDBMS, SQL Server, Postgressql, Redis, mongodb, HBase**



**Hadoop Data Platform components, YARN and scheduling, HDFS, Apache Kafka, Apache Phoenix, SparkML, Data Lake Pattens, HDinsights, Livy**



Designed with ♥ by Xiaoying Riley (<http://themes.3rdwavemedia.com>) for developers  
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