Anirban Mukhopadhyay

PERSONAL DATA

LOCATION: San Francisco, CA EMAIL: anirban.mukhop@gmail.com

LINKS

SITE: anirbanmu.com GITHUB: anirbanmu LINKEDIN: anirbanmu STACKOVERFLOW: Xornand

TECHNICAL SKILLS

SOFTWARE DEVELOPMENT	API design, scaling, unit testing, TDD, OOP, DevOps, software systems architecture, task breakdown, cost estimation
LANGUAGES	C++, Ruby (and Rails), C, Python, Hack, Go, Rust, Javascript/Typescript (Angular, React, Vue), SQL, HLSL, GLSL, x86/x64 ASM, Java, C#, PHP, CSS, HTML, VHDL, Visual Basic
TECH/TOOLS	Git, Perforce, Docker, Kubernetes, Terraform, PostgreSQL, MySQL (and Vitess), Redis, ElasticSearch, AWS, WinDbg

WORK EXPERIENCE

AUG 2020 – PRESENT

SLACK, San Francisco, CA - *Senior Software Engineer, Backend*

Working on the Slack developer platform as a whole with a large focus on apps, notifications from apps & developer APIs.

Migrated a large number of assets away from legacy storage in order to improve performance & reduce costs with no user-visible side effects. Refactored the codebase to ease future migrations.

Main technologies used: Hack, PHP, MySQL, Vitess, Solr, Docker, Terraform

JAN 2019 – JULY 2020

ZAPINFO (ACQUIRED BY INDEED), Saint Paul, MN - *Senior Engineer*

Developed the whole ZapInfo platform full-stack with a large focus on API integrations.

Designed, implemented & deployed numerous external API integrations (including ZapInfo's first fully customer self-serviceable OAuth 2.0 integration) to ATS/CRM platforms with varying types of APIs (RESTful, SOAP, CSV, XML). These integrations were being used by customers in their daily workflow. Proven to be extensible & configurable to match customer specific needs.

Redesigned a core background workflow (asynchronous) scenario with minimal regressions, better maintainability and improved performance.

Designed the database schema in a practical, performant & maintainable way.

Main technologies used: Ruby (on Rails), Javascript (Typescript, Angular), PostgreSQL, AWS, Docker, Heroku, Elasticsearch, Terraform

FEB 2018 – JAN 2019

CONTENTLY, Saint Paul, MN - *Senior Developer*

Worked on the integrations team to develop many full-stack (focusing on backend) features for the contently.com platform.

Managed/worked on many separate codebases written in different frameworks & languages. Designed API (RESTful) interactions between these growing number of services. Maintained & spun up these applications/services using Docker & Kubernetes.

Designed, implemented & published an ActiveRecord database pruning gem used nightly by the company to produce developer usable database dumps: prune_ar.

Designed, implemented & shipped a global search feature which enabled internal searching across many business entities using partial text/internal IDs. Used ElasticSearch queries extensively.

Refactored core database entities to better match how the business operated.

Main technologies used: Ruby (on Rails), Python (webapp2), Javascript (Vue, React & Backbone), PostgreSQL, ElasticSearch, AWS, Docker, Kubernetes, Google App Engine

JUNE 2017 – SEPT 2017

NOVUHEALTH, Minneapolis, MN - *Senior Developer*

Worked on and tested (RSpec) a Ruby on Rails SMS sending/receiving service for Novu's new product to engage members of healthcare programs (customers of Novu).

Main technologies used: Ruby (on Rails), RESTful APIs, PostgreSQL, many Ruby gems

AUG 2012 – MAY 2016

MICROSOFT, Redmond, WA - *Software Dev Engineer II (Direct3D & DXGI)*

Designed, costed & implemented hybrid graphics support in Windows (machines with an integrated & a discrete GPU). Feature was shipped in Windows 8.1.

Supported Windows 10 GameDVR feature by enabling the GameBar & recording in more applications. Required substantial feature work.

Designed, costed & implemented other smaller features + APIs (both internal + external to Microsoft).

Worked on lots of multi-threaded code (experienced with judging granularity of locks + their cost) & worked on low latency + performance tuning for the Direct3D & DXGI APIs.

Worked with templates, lambdas, STL containers & algorithms.

Fixed numerous bugs & implemented tests.

Worked with various other teams & 3rd party hardware vendors throughout.

Main technologies used: C++, C, WinDbg, Kernel Debugging, Windows Platform

Oct 2010 – Aug 2012 | **Microsoft**, Redmond, WA - *Software Dev Engineer I (Direct3D & DXGI)*

Designed and implemented the elimination of exclusive fullscreen mode for DirectDraw (Direct3D7 and lower). Fixed related application compatibility & performance problems.

Fixed many bugs and implemented smaller features.

Main technologies used: C++, C, WinDbg, Kernel Debugging, Windows Platform

Jul 2010 – Oct 2010 | **Microsoft**, Redmond, WA - *Software Dev Engineer I (Display Kernel)*

Fixed bugs and developed a sample for the Desktop Duplication API. Sample is published on MSDN.

May 2009 – Aug 2009 | **Microsoft**, Redmond, WA - *Software Dev Engineer Intern (DXGI)*

Prototyped and demoed seamlessly optimizing applications that cover the whole screen to run more efficiently. Worked with power team to measure the power savings yielded; savings were significant.

Education

Aug 2006 - May 2010 | **University of Illinois**, Urbana-Champign, IL
Bachelor of Engineering in Computer Engineering
Minor in Physics, James Scholar Honors Program

Interests and Activities

Programming, electronics, racing, Formula 1, automobiles, games & 3D graphics