

Utsob Roy

Polyglot Programmer & System Architect

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Systems software engineer and applied logician specializing in platform architecture and high-performance infrastructure. Backed by over a decade of experience designing deterministic execution states, optimizing high-velocity core platforms, and automating low-overhead distributed layers. Driven by absolute structural precision, I focus on engineering clean, scalable systems from first principles to achieve maximum runtime efficiency and operational velocity.

Skills

Languages

Rust Go TypeScript/JavaScript Python Dart

HTML and Derivatives

Cloud & DevOps

Senior

AWS Google Cloud Platform (GCP) Kubernetes Docker

CI/CD Pipelines Terraform Serverless Cloudflare

OpenStack

Architecture & Tooling

Senior

System Design API Design Microservices

Real-time Systems (Pusher / Yjs) CLI Tools

Open Source Maintenance

Frameworks

Senior

Django Node.js React Next.js Tailwind CSS Redux

Apollo / GraphQL Electron Tauri Flutter

Work

FULFLLD, Inc.
Engineering Manager

<https://fulfld.com> New York (Remote)
2024-11 – Present

Working at a next-gen delivery and logistic management SaaS that caters to complex needs of diverse customer groups and allows inter-vendor delivery management.

- Ported a significant amount of JS code from the POC to Golang, enhancing it on the way.
- Implemented microservices for tasks and crons.
- Architected and implemented Bulk-route optimization.
- Manage project health by enforcing testing, security standards, and best practices.

COdesign Ltd.
Technology Director

<https://co.design> Dhaka
2017-02 – 2024-11

In between starting as a full-stack developer and leaving as a technology director, I managed and ensure growth for my team, delivered premium products for high-paying clients on time, and established the best practices.

- Managed projects to ensure on time delivery.
- Managed team, knowledge base, processes, and training.
- Brought the culture of open-source contribution as an organization.

Worked as DevOps engineer to build financial application and manage the on-premise servers.

- Architected, deployed and maintained on-premise OpenStack servers.
- Built financial applications for inter-vendor communications.

Open Source Contributions

KOReader

<https://koreader.rocks>

Open Source Contributor

Contributed to the ecosystem of a high-performance, cross-platform document viewer specialized for e-ink devices, focusing on annotation data portability.

- Spearheaded a comprehensive revamp of the core highlight export plugin to optimize data structure and reliability for reader annotations.
- Enhanced export workflow compatibility with modern personal knowledge management (PKM) platforms by improving Markdown and text parsing outputs.

Obsidian Digital Garden

<https://github.com/oleeskild/obsidian-digital-garden>

Open Source Contributor

Contributed major architectural enhancements and core features to the leading open-source publishing plugin that enables users to compile and host local Markdown vaults as static digital gardens.

- Architected an extensible system for loading dynamic components, allowing end-users to seamlessly inject and render custom interactive elements within their published notes.
- Optimized the client-side local and global graph rendering engine, significantly reducing calculation overhead and improving smoothness for large personal knowledge bases.
- Engineered an advanced content transclusion (note embedding) framework with robust deep-linking, enabling precise content reuse and seamless jump-to-source navigation.
- Implemented an automated image optimization pipeline and native GitHub Gist embedding to drastically lower page weight and streamline technical documentation workflows.

Projects

DotR <https://github.com/uroybd/DotR>

2026-01

A high-performance dotfiles manager built with Rust, designed for complex, multi-environment configuration workflows. Features native template engine support, profile-based dependency management, and secure interactive secrets handling.

- Engineered with Rust to ensure system stability and performance
- Supports environment-specific profiles (work, home, server) with granular dependency tracking
- Implements dynamic configuration using the Tera templating engine and custom pre/post-deployment hooks
- Advanced CLI features including dry-run mode, diff-visualization, and automated orphaned-package cleanup

A specialized native Android application engineered for Onyx Boox devices to extract and export complex reading annotations. Bypasses standard limitations by interacting directly with the proprietary NeoReader system content providers.

- Reverse-engineered Onyx content provider databases to extract rich metadata, including annotation color, style (wavy/dashed), and placement
- Implemented a custom deduplication engine to resolve annotation conflicts and versioning during export
- Developed a flexible export pipeline supporting JSON, CSV, and user-defined Markdown templates via the Pebble engine
- Optimized UI for E-ink displays with a zero-animation, high-contrast, pure black-and-white interface

A platform-agnostic web application that scales EpubPress functionality to mobile browsers, enabling users to bundle multi-tab web articles into clean, ad-free e-books without requiring a desktop browser extension.

- Eliminated client-side extension barriers by building a mobile-responsive web alternative, allowing e-reader users to aggregate content directly from iOS or Android devices
- Drove significant community engagement and organic adoption across specialized hardware forums, including r/ereader and r/Onyx_Boox, by solving mobile parsing limitations
- Engineered a high-efficiency URL batch processing workflow that extracts, sanitizes, and bundles web content into valid EPUB files in a single click
- Designed a clean, minimalist UI optimized for low-friction text input and instantaneous download delivery

Languages

Bengali	English
Native	Advanced

Interests

Reading

Open Source

Everything except YA