# Parth Mehrotra

I enjoy writing software in environments that prioritize correctness, performance and security.

## Experience

2019–Present **Gemini**, Exchange Engineer.

Gemini is a high-availability, low latency cryptocurrency exchange and custodian with a focus on serving institutional customers. Gemini utilizes React, Scala and Postgres.

- o Growth Team Unified Gemini's data acquisition strategy, across teams, products, and platforms. Vastly improved the quality of behavioral data available to leadership. Required contributing code to each component in our stack, syncing db state to Mixpanel Analytics.
- Gemini Pay As the sole backend engineer, on an aggressive timeline, built a payment system that enables Gemini's 2M+ customers to spend their crypto at several businesses across the country. Helped define and ultimately consume rpc contracts specified by merchants.
- o Exchange Team Joined the effort to rewrite our matching engine as a highly available fault tolerant distributed system. Authored several performance oriented components and libraries.

## 2018–Present **Lockbook.app**, Founder.

Lockbook is an end to end encrypted document editing and sharing platform.

- Designed whole application stack with attention to security, stability and scalability.
- Implemented a shared client library in Rust which manages local state and cross-device synchronization of encrypted document content and metadata.
- Contributed significantly to CLI (Rust), Windows (C#/UWP), iOS (Swift), and Android (Kotlin) clients which interop with shared client library via FFI/JNI.
- AES & RSA cryptography primitives are used for encryption, key sharing, authentication, and signature verification.
- All work is fully open source (github.com/lockbook/lockbook). Started as a script to encrypt and decrypt a folder and organically grew as more people began to share the vision of a better place to store thoughts and collaborate with others.

2018–2019 JP Morgan, Asset and Wealth Management: Model Management, Full Stack Engineer.

The Model Management creates tools for portfolio management. The tools help advisors craft portfolios that meet the constraints of our clients.

- Used React, Spring, OracleDB for general Full Stack development. Created market data ETL's.
- Was appointed Scrum Master for the Model Management development team. Ran sprint planning, retrospectives, daily stand-ups and other scrum rituals. Cut standup time from 35 minutes to 5 minutes. Key objective was to control drift between goals and outcomes.

2015–2018 **SAP SE**, Digital Interconnect Group, UI Technical Lead.

The Digital Interconnect group writes software that helps Telco providers interoperate globally. We leveraged these relationships to build tools that perform marked research, help businesses message consumers, and perform SMS 2FA.

- o Progressed from an internship to a part time role, then transitioned into a full-time Technical Leadership position during senior year at Rutgers.
- o Performed a wide array of functions as a full stack engineer, understood the unique problems associated with massive datasets (petabytes). Built custom tooling for geospatial presentation of data.

2010-Present Multiple other projects, including published apps, startups, video content and a pending patent, are listed at parthmehrotra.com.