# Joban Freet Singh Thind

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#### **EDUCATION**

### University Of Waterloo

Masters of Electrical and Computer Engineering

Waterloo, Ontario, Canada

2023 - 2024

## Thapar Institute of Engineering and Technology

Bachelor of Engineering Computer Engineering; CGPA: 8.45/10

Punjab, India

2017 - 2021

## TECHNICAL SKILLS

• Languages & Frameworks: Java, Haskell, Python, SQL, Spring Boot, Hibernate, JPA, JUnit, Mockito

• Tools & Technologies: Git, Jenkins, Maven, Kibana, Grafana, MySql, Postgres, Docker, Redis , OOPS , Functional Programming, Multi-Threading

#### Professional Experience

Juspay Bangalore, India

Software Development Engineer

Jan 2022 - Aug 2023

- Led a dynamic team of 6 developers to oversee the onboarding of Google onto our merchant stack, discussing APIs, infrastructure and integration strategies.
- Architected and executed the development of Unified Payments Interface (UPI) products for consumer and merchant infrastructure, incorporating advanced features such as split settlements, third-party validations, UPI credit card payments, KYC flows, Aadhaar OTP, UPI Lite, UPI Mapper, and intent and QR payments.
- Managed a tech stack facilitating 10M transactions daily with zero downtime over 1.5 years.
- $\circ$  Implemented query optimizations through caching techniques, reducing DB load by 30% and improving API latency by 10%.
- Contributed to the implementation of a Key-Value (KV) system utilizing Redis to efficiently address unexpected surges in incoming requests.
- Implemented a modular and extensible code architecture to accommodate evolving business requirements, enhancing scalability, code quality, and readability.

#### Amadeus Software Labs

Bangalore, India

 $Software\ Development\ Engineer$ 

Jan 2021 - Jan 2022

- Worked in core reservation team that handled end to end flow from ticket selection to ticket booking.
- Majorly worked on maintenance and bug fixing of code to ensure service quality and up-time.
- Collaborated with cross-functional teams to implement enhancements that improved booking efficiency.
- Worked on Integration of Booking Engine with Cab and Rail content as a feature for one of the client airlines.
- Developed and implemented the full back-end logic for the integration of rail content with flight content.
- Parallelized construction of mixed itinerary to bring down processing time by 80%.

## PERSONAL/ACADEMIC PROJECTS

### • Optimizing Camera Surveillance at Traffic Intersections

- A variation of vertex cover problem implemented using different algorithms including SAT solver in C++.
- Implemented multi threading for parallel task execution, enhancing overall system efficiency.
- Implemented inter process communication between different programs using fork, wait, etc. system calls.

#### • Multi-User Chat Java Program

- Client-Server based chat program based on socket programming.
- Have functionality of group messaging.
- Shows current online users and notifies when a user goes offline.
- User can chat with multiple other users concurrently.

#### • Image Steganography With AES Encryption

- Utility to hide secret messages in regular png image pixels.
- Messages are encrypted using AES Block chain mode before embedding.
- Predetermined secret key used for encryption and decryption.
- o Images before and after embedding secret messages remain 99.99% identical.