<u>prempreetbrar.me</u> <u>github.com/prempreetbrar</u>

# PREMPREET BRAR

(587) 917-4521 prempreetbrar@gmail.com

#### **EDUCATION**

Bachelor of Science, Computer Science Bachelor of Commerce, Finance **University of Calgary** 

Sept. 2020 - Dec. 2025

**GPA: 3.99** 

• *Coursework*: Object-Oriented Programming; Functional Programming; Data Structures & Algorithms; Databases; Networks; Computer Architecture; Microarchitecture; Visualization; Information Security

#### **EXPERIENCE**

### **Software Engineer Intern**

**Roblox** 

May 2024 - Aug. 2024

- Built an efficient replies backend supporting 22 million+ users in C# and .NET by minimizing reads from a CockroachDB SQL database and making gRPC calls across a layered protobuf Microservices architecture
- Increased Platform Chat engagement by 22.5% by adding a clickable reply preview, context menu, draft, and push notifications to a Lua, React.js, Redux, and TypeScript frontend tested using Jest
- Improved discoverability, moderation, and funnel metrics by 23%, 11%, and 28% as measured by Grafana and Apache Superset by creating a FTUX modal, adding reply metadata, and iterating on feedback

### **Software Engineer Intern**

**Binance** 

May 2023 - Aug. 2023

- Improved load times by 27% (0.9 seconds) by migrating 21400+ lines of code to a new Universal UIKit React.js library and converting existing CSS styles to TailwindCSS
- Created an internal org hierarchy chart for 450+ North American employees in React.js by transforming API data using a topological sort algorithm and feeding it into the D3 JavaScript library

# **Software Developer Intern**

**Arcurve** 

May 2022 – Dec. 2022

- Executed workflows for 4500+ franchisees by building a task management page in Material UI, React.js, TypeScript, JavaScript, HTML and CSS that connected to a Python Django REST API
- Sent daily web and email notifications through Amazon SES to 1500+ users by building a Python Django REST backend that received webhooks from a third-party Jotform service
- Reduced onboarding time for new users from 600 to 15 seconds by generating CSV files from a data bucket using Python and Pandas, unit tested using Pytest

### **EXTRACURRICULARS**

### **Advanced Marking Commissioner**

**Schulich Ignite** 

Jan. 2023 - Present

- Lead team of 7 to mark over 50+ students' advanced weekly Python exercise submissions
- Achieved seamless execution of the year-end gala for 300+ students by diligently marking 50+ final projects within a 3-day timeframe

### **Computer Science Tutor**

### **Calgary Bridge Foundation for Youth**

Jul. 2020 - Present

- Taught 11 teenagers Python by implementing lessons from the book "Automate the Boring Stuff"
- Obtained an average volunteer rating of 9.87/10 across 12 bimonthly surveys by incorporating student feedback
- Received <u>Volunteer of the Month in July 2022</u> out of 350+ volunteers for having 225+ hours and providing feedback to increase program size from 15 to 40 students

#### **PROJECTS**

- <u>ApliTrack</u> | *SQLite*, *Sequelize*, *TypeScript*, *React.js*, *Node.js*, *Express*, *Pug.js* A full-stack job application tracking system; uses a relational SQL database designed using an Entity Relationship (ERD) diagram.
- <u>Nexpedia</u> | *JavaScript, Node.js, Express, MongoDB, Mongoose, Pug.js* Expedia clone for nature tours; REST API with an MVC backend architecture, authentication using JWT, server-side rendering with Pug templates, file uploading with Multer, payments using Stripe, Brevo email handling, deployed using Adaptable.

# **S**KILLS

- · Languages: C#, SQL, protobuf, Java, JavaScript, TypeScript, Lua, Python, HTML, CSS, Pug
- Tools/Frameworks: CockroachDB, .NET, Django, MongoDB, Node.js, Express, Pandas, React.js, TailwindCSS