# CHARAN SRIRAM

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## EDUCATION

**The University of Texas at Austin** — May 2025
B.S. Honors Computer Science, BBA Canfield Business Honors
*Relevant Coursework:* Operating Systems, Concurrency, ML, Computer Architecture, Algorithms, Autonomous Driving

## EXPERIENCE

**Tunnel** – *Software Engineering Intern;* Austin, Texas — September 2023 – Current
• Selected against 300+ candidates to work on Neo VC backed collaborative tunneling server
• Building CI/CD platform in TypeScript for 150 beta users connected to Github Actions

**Capital One** – *Software Engineering Intern;* Plano, Texas — May 2023 – August 2023
• Developed concurrent network request scheduler on AWS EC2 in Java, handling up to ~500 requests per second
• Created new CI/CD pipeline in Jenkins with 95% test coverage connected to AWS ECS
• Built async translation engine in Typescript to convert text to 30+ languages based on user preference
• Diagnosed and fixed race condition on page load, leading to ~40% speed increase across 12 auto loans services

**University of Texas at Austin** – *Teaching Assistant, Operating Systems*; Austin, Texas — January 2023 - May 2023
• Taught and debugged systems related concepts such as threading, virtual memory, and file systems for class of 80 students
• Held office hours (15hrs/week), facilitated discussions, and created assignments & quizzes every week
• Received highest end of course rating of 4.65 from 52 students across all categories (communication, knowledge, engagement)

## PROJECTS

**Phazia** (bit.ly/phazia) – *Founding Engineer* — January 2019 – August 2023
*Drag and drop multiplayer app builder that generates multi-framework code for mobile apps*
• Architected and implemented concurrent multiplayer engine using CRDTs in Rust, reducing memory usage by 15x
• Migrated existed JSON data model to Protobuf based model reducing network request sizes by ~75%
• Constructed CI/CD pipeline connecting frontend to S3 with CDN and backend to EC2 cluster
• Developed code generation algorithm converting data model to ASTs, targeting Dart/Flutter

**Phases** (bit.ly/phases-demo) – *Lead Developer (open source)* — May 2023 – August 2023
• Created concurrent tunneling service in Golang, reducing memory footprint by 4x compared to JavaScript equivalent
• Pioneered HTML to AST mapper for React allowing for selection of underlying code for LLM based edits

**ChatOS** – *Developer* — January 2023 – May 2023
• Built functional Operating Systems Kernel and GUI from scratch in C++ with team of 20+ peers
• Implemented TCP/UDP protocol from scratch, implementing entire network stack

**Clove** – *Lead Developer* — July 2020
• Conceptualized and developed front-end behind recipe-sharing app using React, Redux, Firebase, and Styled-Components
• Placed 1st against 20 teams and awarded $1000 + all-expenses paid trip to Pinnacle 2021

## LEADERSHIP EXPERIENCE AND ACTIVITIES

**Computer Science and Business Association** – *Vice President of Growth* — August 2022 – May 2023
• Elected to position to handle prospective student events, club-staff relations, and inter-org activities for 90+ members
• Designed and developed website frontend/backend (texascsba.org) receiving 8 sponsorship requests (BoFa, Intuit, A&F, etc.)

**Texas Isshinryu Karate Kai (TIKK)** – *Team lead/event coordinator* — January 2016 - January 2022
• Supervised team of 34 to organize multi-day fundraisers and martial arts seminars with typical attendance of 200-250 members
• Orchestrated three-day overnight training camp with over 260 competitors that raised over $25,000

## HONORS

• Neo Scholar Finalist — 2023
• Third Place (3/45), General Category, Datahacks Hackathon — 2022
• First Place (1/20), General Category, Everest Hackathon — 2020

## ADDITIONAL INFORMATION

**Programming Languages:** C++, Golang, Rust, Python, JavaScript, TypeScript, Java, CUDA, SQL, Dart, C
**Frameworks and Platforms:** EC2, S3, Cloudformation, Redis, Redux, Firebase, Docker, Node.js, React, Actix-Web