

CHAITHANYA SHYAM DELANTHABETTU

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Education

Georgia Institute of Technology

August 2025 - May 2027

Master of Science in Computer Science (Computing Systems specialization)

Atlanta, GA

- GPA 4.0/4.0.
- Coursework: Blockchain, Graduate Algorithms, Internet Architecture, High Performance Computing Architecture, Machine Learning, Dynamic Algebraic Algorithms

National Institute of Technology Karnataka Surathkal

August 2019 - May 2023

Bachelor of Technology in Computer Science & Engineering, GPA 8.36/10

Mangaluru, India

Technical Skills

Languages: C++17, C, Rust, Solidity, Python 3, Java, TypeScript, JavaScript, SQL, P4, bash.

Frameworks & Libraries: Foundry, ethers.js, OpenSSL, gRPC, Protocol Buffers, React, Vite, Node.js/Express, SQLite.

Developer Tools: AWS, Docker, Git, Linux, CI/CD, gdb, BigQuery, Spanner, MapReduce, Blockscout API, Intel Tofino.

Blockchain: EVM, Solidity, EIP-7702 (type-4 transactions), Keccak-256, AMM/DEX mechanics, reentrancy, mempool & MEV, on-chain indexing, Sepolia.

Awards & Achievements

- **Candidate Master** on [Codeforces](https://www.codeforces.com) (max 2042) and **6-star** on [CodeChef](https://www.codechef.com) (max 2222).
- ICPC 2021 Asia West continent finalist; ranked **24th of 130 teams** at ICPC Amritapuri Regionals.
- Problem setter for **ICPC 2022** regional rounds. Coached and organized the Indian IOI training camp 2023.

Experience

Google

July 2023 – August 2025

Software Engineer II, Backend / Distributed Systems

Bengaluru, India

- Designed and deployed a **distributed backend service** enabling thousands of advertisers to bid on offline ads, projected to generate **\$XXM+ annual revenue**.
- Implemented a **high-throughput C++ gRPC microservice** using Protocol Buffers handling **30k QPS at 100ms p99 latency**; optimized memory allocation and hot-path performance under production load.
- Led a **2-year migration** of a core ETL pipeline processing large-scale advertiser data using **MapReduce, BigQuery, and Spanner**.
- Built a **diff-based regression testing framework** integrated into CI/CD, reducing production and rollback incidents; owned on-call, incident response, and phased rollouts.
- Ran a **100k+ scale ML evaluation pipeline** benchmarking Gemini outputs against a Knowledge Graph truth; built an **N-gram text indexing system** classifying 1M+ brand entities for real-time ad annotation.

Technical Projects

Buzzcoin on Ethereum Sepolia testnet | Solidity, Foundry, C++, Node.js, React, SQLite

Apr 2026

- Deployed two **EIP-7702 delegate contracts** on Sepolia that executed an entire **CS6270** course rubric inside opted-in EOAs. Bundled offline authorization tuples into **type-4 transactions** so Buzzcoin payouts routed to delegators and then forwarded to the operator atomically within a single tx.
- Wrote a **reentrancy attacker** against a **DAO-style exploit** that drained all the cap in one tx via the fallback hook.
- Built a **mempool sandwich scanner** that polled pending Sepolia txs, simulated them against a local Foundry fork, and flagged profit-after-gas front-run/back-run pairs on two constant-product AMMs. Also executed multi-hop **DEX arbitrage cycles** across both pools after oracle-induced imbalances.
- Shipped a **live indexing dashboard** with three ingestion paths which were log replay, direct storage polling, and **inner [CALL]-frame attribution** capturing EIP-7702 delegated calls.

Corrent – BitTorrent Client from Scratch | Rust

October 2025

- Implemented a **memory-safe BitTorrent client** in Rust covering the full protocol stack: Bencode serialization, tracker HTTP API, and peer-to-peer TCP communication.
- Built a custom **recursive-descent Bencode decoder** handling all wire-format types (integers, byte strings, lists, dictionaries) used in torrent files and tracker responses.
- Implemented **SHA-1 piece integrity verification** for every downloaded chunk against the torrent manifest, and a TCP peer layer with handshake negotiation, choke/unchoke state machine, and sequential piece request/response logic against live peers.

Clubs & Extracurricular Activities

- **Head Teaching Assistant**, Graduate Algorithms @ Georgia Tech Jan. 2026 – Present
- **Competitor, Algorithms lecturer**, Officer @ Georgia Tech Competitive Programming Club Jan. 2026 – Present
- **Additional Interests:** Professional FIDE-rated chess player, certified scuba diver.