

cchimmili3@gatech.edu
(470) 509-2242
U.S. Citizen

Chiranjeevi Chimmili

github.com/chiranchimmili
linkedin.com/in/chiranc
chiranchimmili.github.io

EDUCATION

Georgia Institute of Technology

Atlanta, GA

B.S. in Computer Science, B.S in Mathematics; GPA: 3.8

May 2024

Concentrations: Systems, Architecture, & Networking

Coursework: *Algorithm Design, Computer Organization, Systems & Networks, Databases, Object-Oriented Design
Probability Theory, Analysis I, Combinatorics, Advanced Linear Algebra, Mathematical Proofs*

EXPERIENCE

Georgia Tech – High Performance Architecture Lab

Atlanta, GA

Incoming Undergraduate Research Assistant

Aug 2022 - Present

Georgia Tech – College of Computing

Atlanta, GA

Undergraduate Teaching Assistant for Computer Systems

Aug 2022 - Present

- Assist lectures, create assignments, and hold weekly recitations and office hours for course of 250+ students.
- Teach topics such as processor design, pipelining, memory management, multithreading, and basic networking.

Viasat Inc. – Secure Network Services

Boston, MA

Software Engineer Intern

Jun 2022 – Aug 2022

- Created a 900% cheaper in-house alternative to Ixia/Spirent network testers by utilizing a Xilinx FPGA.
- Developed a minimalistic user-interface using React and Flask that saved more configuration setup time, and offered scripting capabilities.
- Networking testing features include packet generation, verification (headers, checksum, length, packet and burst gaps), multi-streaming, BERT, and error injection.

Georgia Tech Research Institute – CIPHER Laboratory

Atlanta, GA

Research Intern

May 2022 – Jul 2022

- Coded fully-functioning C++ program to improve efficiency and effectiveness of current encoding, decoding, and error correction DNA archival storage codecs.
- Implemented six-step pipeline including Galois-field based Reed-Solomon code, data striping with indexing, and byte-to-DNA base translation.
- Achieved 99.9% recovery rate at 0.47% total simulated error, comparable to modern codecs.
- Parallelized encoding and decoding utilizing multithreading, achieving 33% speed improvement.

PROJECTS

- **Poker Hand Solver:** Texas Hold'em poker solver that applies game theory principles and combinatorics. User can simulate and visualize outcomes of their hand and calculate hand equity. Created using Java and JavaFX.
- **Wildfire Risk Analysis:** Member of Big Data Big Impact's platform sub-team that managed API development and web-scraping. Centralized homogenized data sets into GCP to be used for developing wildfire susceptibility maps that provide probabilistic outputs of risk.
- **Haunted Hunter:** Created React and Flask application that scrapes Shadowlands HP Index and returns locations and descriptions of the nearest "haunted places" from a user specified location. Utilizes Google Maps and MapQuest APIs.
- **COVID-19 Vaccine Notifier:** Programmed mass notification system that informs patients of local clinic of their eligibility to receive the Moderna vaccine, helping hundreds of elderly and at-risk patients.

SKILLS

Languages: Python, C++, Java, C, Kotlin, JavaScript, HTML/CSS, SQL, \LaTeX
Technologies: React, Linux, Visual Studio Code, Git, Flask, Google Cloud Platform, Android Studio, Docker
Interests: Computer Architecture, Programming Languages, Sports, Card & Board Games, Fitness