# Cheran Senthilkumar

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# Education

# IIT Guwahati | CLASS OF 2018

## B.Tech. in Maths and Computing

Class Representative, 2014 - 2018 President at MATRIX, 2016 - 2017

# Skills

## **Programming Languages**

Fluent: Python, Go Skilled: C/C++, Bash Familiar: Haskell, JavaScript

# **Decentralized Technologies**

• BitTorrent • ECC • Secret Sharing

## **Machine Learning**

• Keras • TensorFlow • Torch

## **Database Programming**

• Neo4j • Redis • MongoDB • SQL

## DevOps

- CircleCl Helm Kubernetes
- AWS GCP Docker

# Links

O Github://cheran-senthil

in LinkedIn://cheran-senthil

II. Codeforces://c1729

# Coursework

#### **Mathematics**

Optimization
Combinatorics
Graph Theory

## **Computer Science**

Data Communications
Operating Systems + Practicum
Computer Networks + Practicum

#### **Finance**

Monte Carlo Simulation Stochastic Calculus Statistical Analysis + Practicum

# **Experience**

#### **Audius** | Software Engineer

Dec. 2020 - Present | Remote (United States)

Protocol and distributed systems engineer; testing, features and incident response.

# Chesslang | Senior Software Engineer

Sep. 2020 - Nov. 2020 | Remote (Contract)

Full Stack and DevOps programming related to new features and their deployment.

## Torus Labs | Software Engineer

Jul. 2019 - Aug. 2020 | Singapore

Worked on Decentralized Server Architecture, OAuth flows for login, DevOps, Automated Testing Frameworks (CI/CD) & Architecture, and Deployment Scripts.

## BlockPunk | Software Engineering Intern

Oct. 2018 - Jan. 2019 | Remote / Singapore

Blockchain Engineer at BlockStudios, wrote Smart Contracts for NFCs and TCRs.

## Goldman Sachs | SUMMER ANALYST

May 2017 - Jul. 2017 | Bengaluru, India

Interned as a strat with the Investment Management division of Goldman Sachs.

# **Projects**

# kNight.js | CRYPTO WEBMINER

kNight implements cryptonight\_v7 and was one of the first free alternatives to coin-hive as a CryptoNight miner built with JS and C/C++ (WebAssembly).

#### Run on EC2 | CLI Tool

run-on-ec2 is a versatile CLI to guickly execute scripts on an AWS instances.

#### PyRival | Competitive Programming Library

A pure Python library with optimized algorithms and tools for rapid execution.

## Research

## **Bachelor Thesis** | Congruences of Partitions

Jul. 2017 – Apr. 2018 | Dept. of Mathematics, IIT Guwahati, India

Worked with Abhishek Tyagi and Dr. Rupam Barman to investigate Congruences of Partitions, specifically pertaining to Rank Differences and Cubic Partition Pairs.

#### **Summer Research** | Number Theory

May. 2016 - Jul. 2016 | Dept. of Mathematics, IIT Guwahati, India

Worked under Dr. K. V. Srikanth to investigate the properties of Quadratic Residues. Later implemented a multivariate extension for the Chinese Remainder Theorem.

# **Contests**

2019	1 <sup>st</sup> (United States)	HashCode Online Qualification Round (71st Globally)
2019	277 / 102,319	ProjectEuler+ on HackerRank
2014	987 <sup>th</sup> (General)	IIT-JEE 2014 (99.93 Percentile)
2013	16th (State)	National Mathematics Olympiad (Top 300 Nationally)