

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

Over 50,000 lines: Python

Over 10,000 lines: C++, Go

Over 1,000 lines: Haskell, JS

Decentralized Technologies

• BitTorrent • ECC • Secret Sharing

Machine Learning

• Keras • TensorFlow • Torch

Database Programming

• Neo4j • Redis • MongoDB • SQL

DevOps

• CircleCI • Helm • Kubernetes
• AWS • GCP • Docker

Links

 Github:// cheran-senthil

 LinkedIn:// cheran-senthil

 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

Torus Labs | SOFTWARE ENGINEER

Jul. 2019 – Present | Singapore

Building a distributed private key management solution to allow use of blockchain applications using authentication methods like Google, Facebook, Discord, etc.

AI Palette | MACHINE LEARNING ENGINEER

Jan. 2019 – Jun. 2019 | Remote

Deep Learning Engineer at AI Palette, working on solutions for the FMCG industry.

BlockPunk | SOFTWARE ENGINEERING INTERN

Oct. 2018 – Jan. 2019 | Remote / Singapore

Blockchain Engineer at BlockStudios, the first decentralized marketplace for anime.

Goldman Sachs | SUMMER ANALYST

May 2017 – Jul. 2017 | Bengaluru, India

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

Projects

Bitcoin Keygen | BITCOIN UTILITY FUNCTIONS

Implements ECC in pure Python to generate Private Key-Public Key pairs in various ways. Further supports all utility features required by a Bitcoin node.

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