Cheran Senthilkumar

(+91) 824-851-8358 | cheran.v.senthil@gmail.com | U.S. Citizenship

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++
Over 1,000 lines: Haskell, Go

Decentralized Technologies

• BitTorrent • ECC • Blockchain

Machine Learning

• Keras • TensorFlow • Torch

Database Programming

• Neo4j • Redis • MongoDB • SQL

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

AI Palette | Machine Learning Freelancer
Jan. 2019 – Jun. 2019 | Singapore (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).

Deep Drawing | Image Generator
Generates images based on training data using GAN implemented with Keras.

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