Cheran Senthilkumar

(+65) 8696 4395 | cheran.v.senthil@gmail.com | U.S. Citizen

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 • Blockchain

Machine Learning
• Keras • TensorFlow • Torch

Database Programming
• Neo4j • Redis • MongoDB • SQL

Links

⚙ Github:// **cheran-senthil**
in 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 FREELANCER
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).

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

Year	Rank	Contest
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)