

Venkkatesh Sekar

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EDUCATION

NIT, TRICHY (NITT)

B. TECH IN COMPUTER

SCIENCE AND ENGINEERING

Expected May 2018 | Trichy, India

Cum. GPA: 8.5 / 10

SHRISHTI VIDYASHRAM

Grad. May 2014 | Vellore, India

Graduating Percentage: 95%

LINKS

GitHub:// Spockuto

Medium:// @venkkateshsekar

LinkedIn:// venkkateshsekar

SKILLS

PROGRAMMING

Over 10000 lines

• C/C++ • Python • PHP

Over 5000 lines

• Ruby • JavaScript

Familiar

• HTML/CSS • Shell • Node
• Git • MySQL • MongoDB
• Docker • TeX

Web Frameworks

• Ruby on Rails • Laravel • Flask

COURSEWORK

UNDERGRADUATE

Algorithms

Data Structures

Operating Systems

Networks

Database Management

Compilers

Artificial Intelligence

INTERESTS

System Security

Cryptography

Kernel Development

Computational Astrophysics

EXPERIENCE

UNIVERSITY OF SURREY | RESEARCH INTERN

May 2017 – July 2017 | Guildford, United Kingdom

- Developed a **distributed password authenticated keyword search protocol** to outsource and retrieve data securely with encrypted keywords.
- Worked under **Dr. Mark Manulis** at the **Surrey Centre for Cyber Security**.

MOZILLA WINTER OF SECURITY | OPEN SOURCE DEVELOPER

September 2016 – April 2017 | github.com/Sachin-A/Blake2

- Worked on **BLAKE2 & ARGON2**, a set of **fast hashing** libraries in **C** for **Network Security Services (NSS)**. Tests were written using **Google Test**.
- **NSS** is a set of libraries designed to support **cross-platform development of security-enabled applications** like Mozilla Firefox and Google Chrome.

FESTEMBER | HEAD, WEB OPERATIONS

January 2017 – September 2017 | NIT-Trichy, India

- Responsible for building and maintaining **the entire computing infrastructure** that powers **Festember (Int'l Cultural Festival)**.
- Complete API for web and mobile platform. Included Admin Panel for monitoring of participants, event statistics and sales of tickets.
- Recorded an unprecedented number of **site hits (over 300,000)** and **app downloads (over 6000)**. Used by more than 13,000 students from various colleges.

DIPPER | SOFTWARE DEVELOPMENT ENGINEER INTERN

November 2015 – December 2015 | Delhi, India

- Developed a Geo API in **Ruby on Rails** to populate custom **Geofences, Points of Interest** and compute real-time pit stops and routes for freight logistics.
- All code was reviewed and pushed to production.

PROJECTS

PAKS June 2017 - Present | github.com/Spockuto/paks

- **Secure Multi-Server Web application** to distribute and retrieve files based on encrypted keywords. Offers **higher performance output** than previous models.
- Built using **NodeJS** with Industry level Cryptographic standards (**ECC-P384**).

VOICE-TUTOR July 2016 | github.com/thakkarparth007/voice_tutor

- **Call based automated tutor** capable of delivering **audio lessons, progress tracking and clarifying doubts**. Provides support to English and Hindi.
- Implemented with **NodeJS** using **Google Cloud Services** and **Exotel API**.

BLOCKHASH Dec 2015 | pypi.python.org/pypi/blockhash

- **Multi-threaded SHA2** for large files optimizing the speed by over **50%**.
- Implemented in **Python** and has been downloaded over **1200** times.
- Support to **SHA3** was added at **github.com/Spockuto/sha3-parallel**.

REMOTE-PRINT Oct 2015 | github.com/Spockuto/Remote-Print

- Web app to support **device agnostic intranet printing** for NITT students.
- Implemented using **Laravel** and **OpenLDAP**.

AWARDS

2016 2nd

2016 Finalist

2016 223rd

2015 Linux Essentials

2014 1st

2011 4th

2006 1st

InOut, India's largest student based Hackathon, NIT Surat.

Capture the Flag, **Microsoft Build the Shield**

Google Capture the Flag worldwide

Linux Professional Institute, Toronto, Ontario, Canada

Mathematical Quiz, State Level, **VIT**

6th National Interactive Maths Olympiad

Japanese Soroban Mental Maths National Competition