

Venkatraman Srikanth

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NATIONALITY: USA

EDUCATION

NIT TRICHY

B.TECH IN COMPUTER SCIENCE AND ENGINEERING

Graduated May 2019

GPA: 7.47/10

COURSEWORK

Data Structures and Algorithms

Computer Architecture

Operating Systems

Data Comm. and Networks

Compilers and Formal Languages

Pattern Recognition

SKILLS

LANGUAGES

C# • C++ • JavaScript

Haskell • Python • Java

WEB DEVELOPMENT

ASP.NET • Spring • NodeJS

HTML • CSS • React

TOOLS

SQL • Kubernetes • Docker

TOY PROJECTS

- Tiny File Server in C
- Album Art Audio Visualizer
- Procedural Map Generator
- Nim AI in Haskell
- Chinese Flashcard Generator
- Crossword Clue Parser

ACHIEVEMENTS

2017 - **Winner** / 100+ Teams

CodeOSoccer AI Contest, IITKGP

2017 - **Winner** / 50+ Teams

Webbed Speed Dev event, Vortex

2017 - **Winner** / 30+ Teams

Pragyan Hackathon

EXPERIENCE

MICROSOFT | SOFTWARE ENGINEER II

September 2019 - Present | Redmond, WA

- Working on **Azure Video Analyzer**, a PaaS for analyzing and archiving live camera feeds using composable AI powered pipelines across the cloud and the edge
- **Reduced Azure Storage costs by over 10x** for customers by implementing a **batch scheduling system** that combines video fragments before upload
- **Designed and maintained fault tolerance and recovery systems** for Video Analyzer Edge, an IoT app running on unreliable customer environments
- **Improved developer experience and code quality** by enhancing testing framework with support for file system mocking, easier testing of parallel code, etc.

AMAZON | SOFTWARE DEVELOPMENT ENGINEER - INTERN

May - July 2018 | Chennai, India

- **Simplified weekly traffic analysis** in high capacity services for the Kindle Store back-end team by designing a new metrics visualization website
- **Cut down the total time taken** to look up the root cause of a metric deviation by implementing **one-click lookup of metrics** on existing telemetry services
- Enabled managers to view high level metrics as a time series and optionally export to Excel, without having to manually dig through raw data
- **Currently actively used by at least 4 teams at Amazon**, with scope for expansion

HASKELL SUMMER OF CODE | STUDENT DEVELOPER

May - August 2017 | haskell.org | github.com/google/codeworld

- A project on export functionality in **CodeWorld**, an educational environment to **teach kids functional programming** using a Haskell variant
- **Implemented the ability to export** web based animations and games to Android apps, using the Apache Cordova framework (Link to Project Summary)
- **Actively used in several US elementary schools** in the K-12 semester scheme

PROJECTS

CODE CHARACTER Feb 2018 | engine source | renderer source

- An **AI programming challenge** for the tech fest Pragyan '18, where players, using the provided API, control troops in a real-time strategy simulation
- **Designed and implemented the game engine from scratch in C++**, which uses LLVM bytecode instrumentation for deterministic code runtime measurements
- **Built a website and online IDE**, which ran user code in secure Docker environments
- **Played by over 1300 people from 74 different countries**

GAMEBOY EMULATOR March 2019 | source

- **Built a Nintendo Game Boy emulator in C++17**, with SFML for graphics. **Plays real game ROMs** like Tetris and Super Mario Land with cross-platform support
- Emulates Z80 hardware opcodes, memory, and I/O systems in a performant manner
- Project was used to demonstrate basic computer hardware concepts during my talk on emulator design to more than 200 attendees

OTHER

DELTA FORCE | HEAD, WEB OPERATIONS

Jul 2016 - May 2019 | NIT Trichy | delta.nitt.edu

- The programming club of my college, which handles most of the **web and app development** for various activities and festivals
- **Conducted an introductory workshop on Linux and Python** for more than 100 freshmen, and taught basics of scripting and web scraping