# Sanjit Kumar

# **EDUCATION**

Master of Computer Science, University of Illinois at Urbana-Champaign ☑

Aug 2022 - May 2024 Champaign, USA

3.89/4.00 GPA

Relevant Coursework: Distributed Systems, Interactive Computer Graphics, Operating System Design, Data Mining.

Jul 2018 – May 2022

**B.Tech Computer Science and Engineering,** Vellore Institute of Technology, Vellore 3.87/4.00 GPA

Vellore, India

Relevant Coursework: Artificial Intelligence, Object Oriented Programming, Parallel and Distributed Computing.

#### **SKILLS**

Problem Solving (Java, Python, C, C++) | Web Development (ReactJS, NodeJS, PHP, WordPress, HTML/CSS)

Database Management (SQL, MongoDB, Elastic Search) | Machine Learning (TensorFlow, PyTorch)

Systems Programming (Linux Kernel, Hadoop, Sockets, Distributed Systems)

#### PROFESSIONAL EXPERIENCE

#### Software Engineer Intern, Aviz Networks Inc.

May 2023 - Aug 2023

San Jose, USA

Erode, India

- Works on a Network Analyzer solution in C++ that captures network packets from switches, routers and linux servers and streams metadata information elsewhere to monitor and analyze network health.
- Leverages Elastic and Kibana to evaluate metrics of interest.

### Software Developer Intern, Zigma Software

Sep 2021 - Nov 2021

- Designed and developed an end to end weigh bridge software solution for trucks and heavy motor vehicles. Coordinated and documented client reviews to track project trajectory.
- Implemented tests for functionality and optimized database queries to improve performance.

### Full Stack Developer Intern, WebKnot Technologies Pvt. Ltd. 🖸

Nov 2020 - Dec 2020

- Engineered Custom Tensorflow object detection model plugins with an open-source CCTV framework called Shinobi.
- Developed web pages with ReactJS and REST API with node.js and Express.js for two different MERN stack applications for local businesses in Bangalore.

# **PUBLICATIONS AND PRIZES**

#### Best Ethereum Project & Best Dyte Powered Project,

21 Mar 2021

Bangalore, India

DevSpace Hackathon, Computer Society of India, VIT  $\square$ 

Developed a fundraising Platform (called WildSprint) using Solidity, ReactJS, Dyte and Node.js to advocate for wildlife preservation using crypto crowdfunding.

# Internet of Things Security: Attacks, Solutions, Strengths and Limitations,

26 Sep 2021

International Conference on Artificial Intelligence and Machine Vision, IEEE 🖸

Presented a comparative analysis with benchmarks of latest security frameworks in recent IoT literature while advised by Dr. Anil Kumar Kakelli.

# **ORGANIZATIONS**

#### THEP Journalism Club, Tech and Media Head [2]

Feb 2020 - Jan 2021

- Worked with a team of 6 to move the literature club's newsletter segment (The Weekly Edge) online.
- Developed and launched a full scale MERN stack web app that facilitated writing, editing and publishing articles by club members. Tracked and increased reader traffic by 40%.

# **PROJECTS**

# Distributed ML Job Scheduler System 2

- Designed an ML inference job scheduler system build on top of 10 Linux VMs from scratch using Java and Python.
- Includes distributed data logging service, distributed group membership protocol and failure detector, a distributed files system and a real-time work scheduling algorithm to optimize query rate for ResNet and ImageNet ML inference tasks that sit on top of each other.

#### Yarn Inventory Manager

- MERN Stack web application that works as a website/catalogue for a yarn trading entity in Erode, TN, India to receive business inquiries for products. Data collected is used to create visualizations for business intelligence.
- Also designed and implemented an alternative JavaFX frontend.

# Credit Card Fraud Detection with CLONALG

• Credit Card Fraud Transactions Classifier using a hybrid artificial immune system algorithm that mimics human secondary immune response (called CLONALG) that uses adaptive data vectors build from ground-up.