# SWAPNIL SANTHOSH NAIR

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## **EDUCATION**

AISSCE Class X	2018 1	The Oxford Senior Secondary School , Bangalore	95.3%
AISSCE Class XII	2020 T	95.4%	
B.Tech in Computer Science	2020 - Pres	sent PES University, Bangalore	8.99 GPA

## WORK EXPERIENCE

#### Fidelity Investments Software Engineering Intern

Jun 2023- Aug 2023

Demonstrated exceptional leadership, led an intern team to develop an application that sped up a process by a factor of 8 and reduced human effort by a whopping 83% for Amazon EKS applications involving Jenkins ,GitHub and Bitbucket company-wide. Delivered the project in half the time allotted.

## PROJECTS

#### Yggdrasil

Designed a Kafka and Zookeeper clone entirely in Python, featuring topic-based routing, multi-broker support, producers and consumers, and a robust Heartbeat system for failover and uptime assurance.

#### McFIAi

Built an on-time flight performance management system utilizing Apache Kafka, Spark Streaming, and PostgreSQL. Enabled real-time handling of high-volume, high-velocity data, catering to the aviation industry's stringent latency requirements. (Name is a pun on Back To The Future )

#### HyperShift

Architected an innovative event photography application using Flask, JavaScript, and Uvicorn. Enabled seamless QR-based streaming of users' content, eliminating storage and data consumption concerns.

#### ConFederate

Developed a federated machine learning system for accelerated healthcare diagnostics, emphasizing and implementing zero knowledge transfer among component nodes to ensure robust data security.

#### The Quotient Quiz Club

# EXTRA CURRICULARS

Headed one of Bangalore's largest quizzing communities. Orchestrated multiple events supported by influential entities such as the Karnataka State Government and The Week

#### Federal Bank Speak for India

Secured a place among the top 32 participants in a nationwide debating competition.

#### The PESU Debate Society

Veteran member and active participant, specialized in the British Parliamentary Format of Debating

#### **Open Source**

Working on building an enhanced Jenkins module for Python.

Working on contributing to FastAPI's SSE library, augmenting event streaming capabilities for servers.

# **TECHNICAL SKILLS**

FastAPI	Python3	Bash Scripting	С	Virtualization	Kubernetes
Linux (Debian)	PostgreSQL	VueJS	AWK	Vector Databases	Cloudaware
Kafka	Docker	Flask	Spark	Terraform	Jenkins

# **OTHER STRENGTHS**

Avid bibliophile with an interest in philosophy.

- Intrigued by economics, taxation, business management, valuation and quantitative analysis.
- Finalist in IIM Indore case study contest and also in the Tata Imagination Challenge