

# Mahan Das

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## EDUCATION

**The University of Texas at Dallas**

**Fall 2019 - May 2021**

Masters in Computer Science

**Govt. College of Engineering, Pune (GPA: 3.69/ 4.0)**

**2017**

Bachelor's in Technology in Electronics and Telecomm (Class Rank: 15/84)

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## SKILLS

**Languages:** C#, Java, Python, MySQL, C, C++, R, JavaScript, VB.NET, Perl, Angular, HTML

**Web Technologies:** Angular, HTML 5, Flask, VB.NET, Socket-IO, WebSockets, SOAP, REST, Micro services, TCP/IP Sockets, AWS(EC2), Brackets, Bootstrap, ReactJS

**Scripts/UI/Versioning tools:** Shell, Perl, JavaScript, JQuery, D3.js, GIT, JIRA, SVN

**Database and ORM:** MySQL, mongoDB, ActiveMQ, Solace, RabbitMQ, ZeroMQ

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## EXPERIENCE

### FINIQ CONSULTING LTD

**Software Developer/ FIX Developer**

**June'2017 - July'2019**

- **Architected and implemented a push-based MVC** approach for streaming data by assigning asynchronous tasks and Lambda expressions to the existing WCF services. (Written in ASPX, SQL, VB.NET).
- **Migrated the main API** from SOAP to a hybrid SOAP and REST based API for backward compatibility and lightweight streaming of real time data between FIX engine and Web Socket's. (SOA in C# and Java)
- **Implemented FIX protocol** using TCP/IP sockets and message brokers (ActiveMQ, ZeroMQ, RabbitMQ), hardware systems (Solace) in Java for over 5 major banks (American & Asian) as part of the FIX Onboarding.
- **Slashed 94% of latency** in message transmission by achieving 76ms with the new distributed architecture over the long polling methodology with 1.32 sec latency, in production. (SQL, Java, C#, TCP/IP, Web sockets)
- **Improved the efficiency by 65%** of Monte Carlo on Vanna Volga pricing from 40 secs to 14 secs by implementing lambda jobs on existing 3D spline for volatility surface value retrieval.
- **Knowledge of Finance** including FIX, Call, Put, Options, Options strategies, Straddle, Strangle, Butterfly, Equity-Linked Notes, Futures, NDF, Swaps, FXCash.

### GOLDMAN SACHS

**Summer Analyst Internship**

**May'2016 - July'2016**

- **Platform Solutions team**, to automate operation divisions tasks.
- **Dropped latency by 60%** by automating the existing architecture of manual archiving of daily commits to the server.
- **Designed and developed Angular web page** to upload and execute the java package.

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## PROJECTS

- **OpenChat:** A multilingual chat room on top of Google Cloud Translate API that converts the conversation to user's base language; Designed in Python with flask with socket-io, with callbacks in JavaScript and jQuery.
- **FIX-Dev:** Implemented an Array of connectivity tools in Java for ActiveMQ, HTTPS and Solace connectivity.
- **VeniDevice:** Built a device to determine the point of insertion for venipuncture extensively in Python. Created on Raspberry Pi2 using IR LED Array, No-IR filter and coded with classification algorithms.
- **Built a distributed system** using mail and python. Passed python files to local node servers via bots listening to mail accounts. Python files are imported, processed and sent back via mail to master server.
- **Additional projects:** Biometric access using veins, DNA based cryptography, mock interviewer using google speech module maintained in GitHub.

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## ACTIVITIES AND ACHIEVEMENTS

- Volunteered for Goldman Sachs Community team works, Bengaluru'16
- Department Rank 15/84 in ECE; First Class with Distinction degree for scoring >75% aggregate
- Volunteered at COEP MUN' 2015, Head of Volunteers at COEP MUN'16
- Secured A1 grade in 5/5 subjects; awarded to top 1/8th of passing candidates in Class X CBSE Boards.
- Awarded Scholarship, for securing 99+ percentile in High School exam.