

# THARUN KONAKANCHI

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## ACADEMIC QUALIFICATION :

<b>Master of Science, the University of Texas at Dallas</b> , Dallas, USA	Aug 2019 – May 2021
<b>Major: Computing systems</b> , Computer Engineering	
<b>Bachelor of Technology</b> , Karunya University, Tamil Nadu, India	July 2015 – May 2019
<b>Major: Electronics and Communication Engineering</b>	

## TECHNICAL SKILLS :

Web Applications	: React.js, AngularJS, TypeScript, NodeJS, jQuery, PHP, HTML, CSS, TCP/IP, NoSQL, Kafka, Spring.
Languages & Tools	: Python, c, c++, SQL, JAVA, Linux, Verilog, Embedded C.
IDE Platforms & Cloud	: Eclipse IDE, Visual Studio, Tidal, Anaconda, Jupyter, Azure, Aws.
Course Work	: Machine Language, Database Design, Design and Analysis of Algorithms, Advanced Operating Systems, Computer Architecture, Web Programming Language, Operating Systems, Parallel Computing.

## PROFESSIONAL EXPERIENCE :

<b>Web Developer, Envision UTD</b> , Dallas, USA	Jan 2021 - May 2021
<ul style="list-style-type: none"><li>Assisted my student organization in updating and managing their web portal using Java, JavaScript, AWS, HTML, and CSS.</li><li>Created and hosted websites from scratch using GoDaddy and lead a team of 3 undergrad engineers and taught them Web development.</li></ul>	
<b>Teaching Assistant, UTD</b> , Dallas, USA	Jan 2020 - May 2020
<ul style="list-style-type: none"><li>Delivered lectures, drafted assignments, and examinations. Also graded them and helped in the assessment of 60+ students.</li></ul>	
<b>Software Engineer Intern, Poly</b> , Hyderabad, India	Jan 2019 - July 2019
<ul style="list-style-type: none"><li>Worked with technologies Java, ExtJS, React, Redux, and Android. Handled various web developments for Group Series endpoint user interfaces for clients like Google and Microsoft.</li><li>Cross-functionally worked with UI interface teams and the backend Database team.</li></ul>	
<b>Software engineer Intern, UNIO Labs</b> , Hyderabad, India	May 2018- July 2018
<b>Project – Public patient health care records:</b> <ul style="list-style-type: none"><li>Proposed a new algorithm for search engines on laboratory websites using Python web-scraping techniques, which reduced the time complexity of the searches from <math>O(n)</math> to <math>O(\log(n))</math>. The website maintained records for public health care.</li></ul>	

## EDUCATIONAL PROJECTS :

<b>Online Course Manager (PHP, JavaScript, jQuery, HTML, Bootstrap, XAMPP, phpMyAdmin, SQL)</b>	Mar 2021 - May 2021
<ul style="list-style-type: none"><li>Designed a website to clone the functionalities of the University coursebook which includes managing web scraped data of more than 700 courses and their dependent information in SQL database, along with storing and validating individual user logs and course plans.</li></ul>	
<b>Implemented Mutual Exclusion Algorithm using Roucairol and Carvalho algorithm in JAVA</b>	Oct 2020 - Dec 2020
<ul style="list-style-type: none"><li>This model consists of two modules. The top module implements the application, which includes the request and execution, the bottom module does the mutual exclusion service. These two modules interact with commands <code>cs-enter()</code> and <code>cs-leave()</code>.</li><li>A testing mechanism was created which ascertains that at most one process is in its critical section at any time.</li></ul>	
<b>Image compression and quality trade-off using K-means clustering - ML (python)</b>	Oct 2020 - Dec 2020
<ul style="list-style-type: none"><li>Developed an image compression project in python using K-means clustering algorithm where the K value is optimized based on the elbow method and silhouette score which helped in compressing the image based on the cluster it belongs.</li></ul>	
<b>Rudimentary Database using python and contact list application (python)</b>	Jan 2020 - Apr 2020
<ul style="list-style-type: none"><li>Worked on database host application that interfaces with a backend SQL database to implement a Contact List application. Used MySQL for creation of database, Java programming, and JDBC connector for connection with database. Employed <code>java.asp</code>, HTML pages for front end and Tomcat server to Host the application.</li><li>Implemented a rudimentary database engine that is loosely based on a hybrid between MYSQL and SQLite, it operates entirely from the command line and API</li></ul>	
<b>ADHD disorder prediction system using Raspberry Pi, Image Processing, and ML techniques (python)</b>	Dec 2018 - Apr 2019
<ul style="list-style-type: none"><li>Took preloaded images for perfectly balanced brains and compared them with existing samples. They were retrieved from medical hospitals all around the city and were analyzed using image processing.</li><li>Python and few ML techniques were used for generating accuracy along this process which we have succeeded with a phenomenal accuracy of 84%.</li></ul>	

## UNIVERSITY ACTIVITIES/ACHIEVEMENTS:

GPSG Graduate Research symposium planning committee member	Aug 2019 - Mar 2020
Secured 2 <sup>nd</sup> place in Hackathon conducted by iB hubs	July 2018
Secured Runner up position in the Hackathon conducted by Karunya university	March 2017