

---

## EDUCATION

### Master of Science in Computer Science.

GPA: 3.3

Aug 2016 - May 2018

University of Florida, Gainesville, USA

**Related coursework:** Advanced Data Structures, Analysis of Algorithms, Computer Networks, Mobile Computing, Programming Language Principles, Database System Implementation, Distributed Operating Systems, Computer Graphics.

### Bachelor of Engineering in Computer Science & Engineering.

Sep 2010 – July 2014

Visvesvaraya Technological University, Belgaum (India)

---

## TECHNICAL STACK

Back-End	C, C++, Java (Proficient), Socket Programming, MySQL, Python, MongoDB (Beginner)
Front-End	HTML5, CSS3/Sass (Proficient), TypeScript, JavaScript (ES6+)
Frameworks	AngularJS, NodeJS (Proficient), Junit, Spring, Hibernate, React (Beginner)
Protocols and API's	TCP/IP, RESTful, SOAP, MQTT, OAuth 2.0
Tools & Utilities	Docker, Git, Wireshark, SoapUI, Subversion, Postman, WebSphere Message Broker, HPQC, Jenkins, JIRA.

---

## PROFESSIONAL EXPERIENCE

### Software Engineering Associate (Middleware Developer - Retail)

Accenture (Nov 2014 – May 2016)

- Worked on a financial services project to handle payment transactions from a mobile application.
- Single-handedly developed and integrated message broker flows handling **SOAP** transactions via HTTP for data processing.
- Built and remodeled interfaces to test various end-points of a retail application while resolving reported defects.

---

## IMPLEMENTATIONS

### IoT – Health Application (Mobile Computing)

Spring 2017

- Responsible for developing a Health Application on **Android** with business logic handled by a **Nodejs** server, detecting BLE beacons placed across campus to suggest better lifestyle habits based on personalized preferences.
- **CRUD** operations were handled with a **RESTful API** via HTTP and data stored in **MongoDB**.

### Custom Database (Database System Implementation)

Spring 2018

- Built a database on **C++** with sorted file implementation for quick access, and generated statistics to optimize queries, improving query results time.

### Compiler Design (Programming Language Principles)

Fall 2017

- **Java** implementation of a lexical analyzer, recursive descent parser, and interpreter for a custom programming language with bytecode optimization using **ASM framework**.

### P2P File Transfer (Computer Networks)

Fall 2017

- **Java** implementation of a P2P BitTorrent protocol for file distribution which could download a file of over 500MB onto 4 peers within minutes, dealing with **concurrency** for choking and unchoking mechanisms of **BitTorrent protocol**.

### Twitter Trend Analysis (Advanced Data Structures)

Fall 2016

- Explored various data structures and implemented **Fibonacci max heap** in **Java** to determine **trending hashtags** which could retrieve most frequent hashtags for over 1 million hashtags quicker than any other tree structure.

### IoT and Embedded Programming (Distributed Systems)

Fall 2016

- Implemented system functions in **C** for Xinu OS, to explore process synchronization, inter-process communication, and **MQTT** protocol suited for embedded environments.
- Implemented an **IoT** application with Cloud Edge Beneath (CEB) Architecture on Beagle Bone Black running Xinu OS to detect temperature and humidity variations and alert when unfavorable conditions were detected
- Low-level drivers are written in **C** and high-level drivers written in **Java**.

### OpenGL Implementations (Computer Graphics)

Fall 2016

- Designed a naïve cubic Bezier curve with user-defined control points and implemented concepts graphics pipeline on C++.