

ZACHARY TARELL

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PERSONAL SUMMARY

Recently graduated with a BS in Software Engineering from The University of Texas at Dallas and a 3.2 GPA. I have been in Computer Science for over 6 years and am most interested in the Artificial Intelligence side, especially Machine Learning, as this was my graduating domain.

That being said, I do not limit myself to just those affinities. I am certainly aware there is much more to learn inside the software dominion than just AI however much it truly brings out the passion and motivation I have for this field.

My ultimate career goal is to find a Software Development environment that is suitable to learn more, is cutting edge, well respected, and has an emphasis on collaboration inside their working atmosphere.

SKILLS

Languages

Python, Java, SQL, R, JavaScript, HTML, CSS, C/C#/C++, UNIX Bash

Technologies Tools

VS Code, IntelliJ, MySQL Workbench, PyCharm, Microsoft Visual Studio, JupyterLab, Netbeans, Eclipse, RStudio, UNIX/Linux, Spring Boot, REST, Trello, Bootstrap, Microsoft Office, AWS (Beginner), Angular JS (Beginner)

EDUCATION

Bachelor's Degree

The University of Texas at Dallas

Aug 2018 – Dec 2020

BS (3.2 GPA) in Software Engineering

Key Subjects

Data Structures & Algorithm Analysis, Artificial Intelligence, Machine Learning, Human Language Technology, Database Systems, Web Design, Probability and Statistics, Mathematical Foundations of SE, Software Management, Software Requirements, Software Design, and Software Testing

Associate of Applied Science

Brookhaven College

Jan 2016 – May 2018

ASS (3.78 GPA) in Software Programmer/Developer

Key Subjects

Advanced Java, Linear Algebra, Calculus II, C#, and C++, Systems Analysis & Design, Information Technology Security and Networking, and Technical Writing

MTHREE TRAINING PROGRAM

mthree's Alumni Program provides high caliber Technology and Business focused graduates globally. Alumni have been selected for and trained to have an aptitude for learning quickly and problem solving in a highly technical environment. Additional training focusses on relevant technologies, typical financial systems, and core business knowledge. Following training they are available to undertake technical project work for mthree clients which include many global Investment, Retail and Commercial Banks around the world.

SOFTWARE DEVELOPMENT PROCESS

- SDLC
- Agile
- Git and Version Control
- Bitbucket and GitHub

JAVA BASICS REVIEW

- Object-Oriented Concepts
- Classes, Objects, and Creating New Types
- Interfaces, Composition, and Inheritance
- Collections & Maps
- Data Marshaling and Unmarshaling
- Simple File IO
- MVC and Tiered Application Design
- MVC and Service Layers
- JUnit, TDD, BDD, Integration and Mocking

CUCUMBER BASICS

- Introduction to Cucumber
- Write and run a Cucumber scenario.

RELATIONAL DATABASES AND SQL

- Introduction to Relational Databases
- ACID Compliance
- Relational Design and Normalization
- Entity Relationship Diagrams
- SQL SELECT Queries
- Data Definition Language (DDL)
- Data Manipulation Language (DML)
- Join Queries
- Page
- Join Queries
- Sorting
- Grouping and Aggregates
- Subqueries and Views
- Spring Boot REST with JDBC Template

SPRING BOOT REST WITH JDBC TEMPLATE

- JDBC and JDBC Template
- JDBC Template and Complex Relationships
- JDBC Template and Testing
- HTTP, REST, and JSON
- Introduction to Spring MVC with Spring Boot
- Spring Boot REST Service
- Spring Boot REST Service with JDBC Template

REST WEB SERVICES VIA JQUERY

- Web Services: Rest vs. SOAP
- Microservices
- Introduction to jQuery
- JSON
- REST API Design
- Ajax
- Postman API execution and examination

SPRING BOOT FULL STACK WEB APPS

- Spring Boot with Thymeleaf
- Context Module Sub Header
- Spring Boot with JDBC Template
- DAO Implementations and Testing
- Controllers and Front-End
- Input Validation
- Page
- Input Validation

FRONT END DEVELOPMENT: REACT

- Introduction to React
- Functional & Class Components
- Styling & Layout
- Web Services
- REST Web Services & Fetch
- REST API Design using CRUD
- Forms in React

EXPERIENCE

Web Crawler to Chatbot – Human Language Technologies – 2020

- Used Natural Language Processing algorithms and built a program which parsed 15 different websites and text to make a chatbot of relevant and important words
- Wrote in Python with PyCharm IDE importing TensorFlow for an optimized Deep Learning probabilistic algorithm called SoftMax
- Crawled different websites from Wall Street Journal to create a JSON file of Knowledge Base facts used to communicate with a real person asking questions about stock market

ServiceNow Cloud Manager – DXC Technology (UTD Final SE Project) – 2020

- With a team of 5, created a GCP and AWS cloud monitoring system script managing common services for DXC Technology to better deal with patches, help desk, security, and other instances as needed
- Familiarized myself with AWS, GCP, and Azure Cloud Services along with ServiceNow. All code was written in JSON
- Successfully were able to take incidents from the cloud monitoring service, turn them into tickets to send to ServiceNow who handled and cleared them. Ultimately freeing up many resources for DXC Technology to allocate elsewhere

Flight Plan – Data Structures and Algorithm Analysis – 2019

- Developed a Flight Plan with weighted time and cost paths of flight patterns
- Wrote in Java utilizing Dijkstra's Shortest Path algorithm w/ Priority Queues and Red/Black Tree data structure
- Able to find shortest paths of flights to specific cities, shortest costs, or both

Two Personal Websites – Web Resume / Laredo Volleyball Training – 2021

- Created a personal web resume using Bootstrap, HTML5, and CSS3. And another for a friend's volleyball camp in Laredo – utilizing Angular JS framework tied to MySQL Database

ADDITIONAL INFORMATION

Hobbies include playing music, 3D Printing, and exercising

Member of National Society of Collegiate Scholars at Brookhaven where I worked in the computer lab during enrollment.

- I tutored students in Object-Oriented Programming Languages and Web Development; Used 4 Different Programming Languages (Java, C++, C#, & HTML/CSS) Helping with Logic & Design
- Upon graduation was awarded 3 certificates of CIT including: Technology Support, Programmer Level I, and Software Programmer/Developer Assistant