

# Guozhi Tang

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## EDUCATION

**Northeastern University, Boston, MA**

December 2019

*Master of Science in Computer Software Engineering*

*Relevant Courses: Data Management and Database Design, Program Structure & Algorithms, Enterprise Software Design (RIA Design/J2EE), Parallel & Multithreaded Program, User Experience Design and Testing, Cryptocurrency & Smart Contract*

**University of Glasgow, Scotland, UK**

June 2017

*Bachelor of Engineering (Honors) in Electronic Engineering*

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## TECHNICAL SKILLS

**Programming languages:** Java, JavaScript (NodeJS, Angular, TypeScript), PHP, C, HTML/CSS, SQL, Solidity

**Frontend:** Angular/AngularJS, Bootstrap, React, jQuery

**Backend:** NodeJS, Express, AWS, Spring, Hibernate      **Database:** MySQL, MongoDB, PostgreSQL

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## PROFESSIONAL EXPERIENCE

**Abcam, Cambridge, MA**

January 2019-August 2019

*Software Engineer Co-op*

- Built a **MEAN (MongoDB, Express, Angular, NodeJS)** stack web application for the chemical engineers which provided instructions to the robots in the manufacturing area with agile development methodology. The web application communicated with internal **mongo** database and a central server which was developed in python in another project.
- Combined previously separated web projects into a unified and structured environment.
- Familiarized the **PostgreSQL** database structure with psycopg2. Tested and designed the database using pgAdmin3.
- Reduced the regular setup time for laboratory engineers by nearly 60% to 100% using internal web application.

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## ACADEMIC PROJECT

**Northeastern University**

July 2019

**AWS WordPress Personal Blog**

- Applied WordPress (a Content Management System) with **PHP** and **MySQL** to build an **AWS** live blog
- Created **VPC**, **EC2** instance, **RDS** and **SNS**. Managed **ELB** for AutoScaling: increased group size when CPU Utilization was more than 80% and decreased that when less than 30%. Completed the personal domain with **Route53** and GoDaddy.com. Used **CloudWatch** to set alarms and OpenVPN to secure the remote access.

**Northeastern University**

May 2018-June 2018

**Personal Medical Website**

- Researched the complexity of online medicine purchase. Designed a personal medical website which had BBS system and could buy the medicine according to the medical histories which were updated by the doctor.
- Applied **Maven** to build the project. Used **jQuery** as well as Bootstrap for the front-end framework. Developed back-end by using **Spring** and **Hibernate** frameworks. Designed database by using **MySQL**.
- Settled different levels of users for different functionalities. Only administrator level users such as physicians and suppliers could edit the medical history or the inventory.

**Northeastern University**

November 2017-December 2017

**Genetic Algorithm Application**

- Genetic Algorithm is to model the search for a solution in the same way that organisms in nature are adapted to their environment and lifestyle. This application is to show the genetic process for trees with **Java GUI**.
- Used **Swing** components to build **Java GUI**. Created three rules for breeding with angles and lengths for branches.
- Application started with generation 0 from which successive generations were bred. In each generation new organisms were given birth to which were based, genetically, on the organisms which were fit for rules.