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# BIHAN ZHUANG

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## EDUCATION

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### DUKE UNIVERSITY, DURHAM, NC

B.S. in Computer Science

B.S. in Statistical Science

Minor in Mathematics

#### RELEVANT COURSEWORK:

Software Design and Implementation

Intro to Artificial Intelligence

Computer Architecture

Discrete Math in Computer Science

Data Structures and Algorithms

Advanced Intro to Probability

Ordinary and Differential Equations

Linear Algebra and Differential Equations

Computational Methods in Engineering

Fundamentals of ECE

Machine Learning (Coursera)

Full Stack Web Development (Coursera)

#### CONTACT INFORMATION:

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github.com/bihanzhuang

linkedin.com/in/bihan-zhuang

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## SKILLS

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Java, HTML, CSS, JavaScript, jQuery,  
Bootstrap, Materialize, Flask, Heroku,,  
MATLAB, Octave, Python, Arduino

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## LEADERSHIP EXPERIENCE

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### VICE PRESIDENT, SOCIETY OF WOMEN ENGINEERS (SWE)

Apr 2016 – present

Organized the 2016 annual trip to SWE  
National Conference; hosted on-campus  
networking events with tech companies in  
the research triangle.

### TREASURER, HOUSE COUNCIL

Sep 2016 – May 2016

Managed the house recreational fees and  
organized events for 90 residents.

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## COMPUTER SCIENCE EXPERIENCE

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### RESEARCH ASSISTANT, DUKE INTELLIGENT MOTION LAB

Dec 2016 – present

Optimizes a clinical decision support framework in stroke treatment that can  
dynamically recommend optimal treatment plans with respect to both patient outcomes  
and expected treatment cost. The system uses POMDP and was written in Python.

### 1<sup>ST</sup> ANNUAL IASA STUDENT ARCHITECT

June 2016 – Sep 2016

*Project:* Grocery store shopping app solution architecture. *Key Features:* Allows the  
customers to scan items' barcode (UPC) while they shop, submit orders on mobile  
devices, and check out on the devices or kiosks without having to wait in long lines.  
*Native app:* frontend – iOS in Objective C or Swift, Android in Java; backend – Node.js;  
payment API – Stripe's API.

### WEB FRONTEND DEVELOPMENT INTERN, 35 HULIAN, XIAMEN, CHINA

July 2016 – Aug 2016

Obtained valuable insight working in a well-known company; used HTML, CSS,  
JavaScript, jQuery, and front-end frameworks such as Bootstrap and Materialize to make  
responsive websites.

### ARDUINO ROBOT DESIGNER

Oct 2016 – Dec 2016

Designed, assembled, coded an Arduino robot that line-follows using QTI sensors  
(forward, backup, turn, stop), detect objects' height using IR sensors, serial send and  
receive messages from other robots using Xbee module, and display messages on LCD.

### MEMBER, DUKE MACHINE LEARNING AND DATA SCIENCE CLUB

Nov 2016 – present

Works on natural language processing.

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## PROJECTS

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### PERSONAL WEBSITE

Jan 2016

View at [bihanzhuang.github.io](http://bihanzhuang.github.io). Built with Bootstrap and jQuery. My personal hub for displaying my  
background, projects and passion in life.

### RANDOM QUOTE GENERATOR

Jan 2016

Simple random quote generator built with Bootstrap, jQuery and deployed by PHP and Heroku.  
Go to <https://rdm-quote.herokuapp.com> to see it!

### FIRST WEB APP

Jan 2016

Made a simple blogging app with Flask and deployed by Heroku.

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## OTHER EXPERIENCE

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### RESEARCH ASSISTANT, THE YOU LAB, DUKE BME DEPARTMENT

Jan 2016 - present

Dynamically model the growth rate dependence of beta-lactam induced lysis in E.coli bacteria;  
codes and operates the TECAN EVOWARE robotic system for daily experiments. Co-author of the  
paper to be published.

### PEER TUTOR, DUKE ACADEMIC RESOURCE CENTER

Aug 2016 - present

Taught Linear Algebra and Chinese and helped students make improvements.

