# **Jack Kotheimer**

## SOFTWARE ENGINEER

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I am a firm believer in result-oriented work - It only took me three years to complete my undergraduate degree. That is not only because I set a goal to do so, but because I dug in and worked hard, all while remaining on the dean's list and creating projects with other developers as much as possible.

Languages	Frameworks	Databases	Tools
<ul> <li>Java</li> <li>C</li> <li>C++</li> <li>Python</li> <li>Bash</li> <li>PHP</li> <li>SQL</li> <li>JavaScript</li> <li>HTML5/CSS3</li> </ul>	<ul><li>Apache CFX</li><li>Node.js</li><li>Flask</li><li>Django</li><li>Hibernate</li></ul>	<ul><li>MySQL</li><li>Amazon RDS</li><li>MongoDB/Atlas</li><li>Firebase</li></ul>	<ul><li>Git</li><li>Linux</li><li>AWS</li><li>SSH</li><li>ElasticBeanstalk</li></ul>

## **Education**

**Loyola University Chicago B.S. Software Engineering (Deans List)**  May 2020

November 2019 - May 2020

June 2019 - August 2019

2018 - Current

## Work Experience

**Back-end Developer Intern EzClinic** Chicago, IL September 2020 – Current

- Reorganized source code repository and filtered out unnecessary and unsafe files
  - Wrote bash scripts to automate the 3 main deployment mechanisms:
    - Local development & debugging server deployment
    - Remote staging server deployment using ElasticBeanstalk & test result fetching
    - Production server deployment using ElasticBeanstalk & CNAME swap
- Executed the migration from a local database to a remote database with a secure transfer of credentials upon deployment
- Completely decoupled server logic from client applications by refactoring to a REST api written in python, using the Django framework
  - Wrote documentation outlining the I/O and application flow of a REST api that would serve the same functionality as before
  - Implemented the decoupling of each HTTP request one REST function at a time
  - Utilized the previously written staging script to test each update before being pushed to production

### **Computer Science Tutor** Loyola University Chicago

- Tutored Loyola Computer Science students on an appointment basis
- Ensured high quality aid to all students both during and outside work hours

### July 2019 - December 2019 Loyola University Chicago Chicago, IL **Research Assistant**

Chicago, IL

Chicago, IL

- Analyzed videos of CPS courses, ensuring curriculum and research standards were upheld
- Participated in a series of seminars determining the most effective educational techniques for computer science **Digital Media Academy**

- Taught fundamentals of the Java programming language to high school students
- Focused on advocating problem solving strategies

**Java Programming Instructor** 

ChatApp

**E-Commerce API** 

**TalkMotion** 

Structured a curriculum with hands-on project based learning

### Android Research Developer Loyola University Chicago Chicago, IL May 2019 - June 2019

- Collaborated with three other software engineers in person, full-time for a month
- Created customizable sign-language-based app for physically and vocally disabled people (see 'TalkMotion' under Project Experience tab)

## **Project Experience**

## Pianoboard https://jackkotheimer.com/projects/#pianoboard

https://jackkotheimer.com/projects/#chatapp

https://jackkotheimer.com/projects/#ecommerce

https://jackkotheimer.com/projects/#talkmotion

Created a RESTful web service to create music projects which store and process client-made MIDI recordings

- All CRUD operations occur in an isolated Node is API, completely uncoupled from the webpage server
- Utilized: PHP, Node.js, Apache HTTPD, HTML/CSS/JavaScript, MySQL, Bash, Git

Developed a customer service based chatting application focused on programmatic database manipulation

## Utilized: Python, Flask, Jinja2, HTML/CSS/JavaScript, MySQL, Bash, Git

Built a RESTful API for a barebones e-commerce website

- Utilized: Java, Apache Server w/ CXF, Apache Maven, Junit, MySQL, Hibernate, AWS, Git
- - <u>Utilized:</u> Java, SQLite, Android Studio, object state machines, machine learning, Git

August 2019 – December 2019

February 2020 - May 2020

May 2019 - June 2019

Collaborated on an Android app to translate sensor readings from hand gestures to text-to-speech commands

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