# **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

# 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 Loyola University Chicago

Tutored Loyola Computer Science students on an appointment basis

November 2019 - May 2020 Chicago, IL

- Ensured high quality aid to all students both during and outside work hours
- Loyola University Chicago

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

**Computer Science Tutor** 

**Java Programming Instructor** 

**Research Assistant** 

ChatApp

**E-Commerce API** 

Structured a curriculum with hands-on project based learning

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

Chicago, IL

Chicago, IL

- 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)

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

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

## **Project Experience**

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

2018 - Current

July 2019 - December 2019

June 2019 - August 2019

- 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

August 2019 – December 2019

February 2020 - May 2020

- Built a RESTful API for a barebones e-commerce website
- Utilized: Java, Apache Server w/ CXF, Apache Maven, Junit, MySQL, Hibernate, AWS, Git

**TalkMotion** https://jackkotheimer.com/projects/#talkmotion May 2019 - June 2019

- Collaborated on an Android app to translate sensor readings from hand gestures to text-to-speech commands
- <u>Utilized:</u> Java, SQLite, Android Studio, object state machines, machine learning, Git