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
• Java • C • C++ • Python • Bash	• PHP • SQL • JavaScript • HTML5/CSS3	• Apache CFX • Node.js • Flask • Django • Hibernate	• MySQL • Amazon RDS • MongoDB/Atlas • Firebase	• Git • Linux • AWS • SSH • ElasticBeanstalk

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 through the following means:
  - 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**	Chicago, IL	November 2019 – May 2020

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

Research Assistant	**Loyola University Chicago**	Chicago, IL	July 2019 – December 2019

- 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

Java Programming Instructor	**Digital Media Academy**	Chicago, IL	June 2019 – August 2019

- Taught fundamentals of the Java programming language to high school students
- Focused on advocating problem solving strategies
- 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	2018 - Current

- 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.js API, completely uncoupled from the webpage server
- **Utilized**: PHP, Node.js, Apache HTTPD, HTML/CSS/JavaScript, MySQL, Bash, Git

ChatApp	https://jackkotheimer.com/projects/#chatapp	February 2020 – May 2020

- Developed a customer service based chatting application focused on programmatic database manipulation
- **Utilized**: Python, Flask, Jinja2, HTML/CSS/JavaScript, MySQL, Bash, Git

E-Commerce API	https://jackkotheimer.com/projects/#ecommerce	August 2019 – December 2019

- 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
- **Utilized:** Java, SQLite, Android Studio, object state machines, machine learning, Git