

Joseph Jacob

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EDUCATION

DUKE UNIVERSITY

B.S. IN COMPUTER SCIENCE

August 2014 - Present

Expected Graduation: May 2018

Durham, NC

Cum. GPA: 3.48 / 4.00

UNIVERSITÉ PARIS DIDEROT

STUDY ABROAD

September 2016 - December 2016

Paris, France

THE WHEATLEY SCHOOL

September 2009 - June 2014

Old Westbury, NY

Cum. GPA: 3.96 / 4.00

LINKS

github.com/joejacob

linkedin.com/in/josephcjacob

joejacob.xyz

COURSEWORK

GRADUATE

Computer Security

Market Design

Computer Vision

UNDERGRADUATE

Data Structures and Algorithms

Design and Analysis of Algorithms

Software Design and Implementation

Computer Architecture and Design

Intro to Database Systems

Intro to Operating Systems

Open Source Software

Discrete Math for Computer Science

SKILLS

LANGUAGES

Proficient:

Java • Python • Ruby

JavaScript • C++ • Git

Familiar:

Scheme • SQL

Swift • Objective-C

FRAMEWORKS

Proficient:

Meteor • Ruby on Rails

Familiar:

Flask • Django

EXPERIENCE

GOOGLE | SOFTWARE ENGINEERING INTERN

June 2017 - August 2017 | Cambridge, MA

- Created workflows for onboarding new users and updating network settings within the ISP Portal using my team's custom workflow framework
- Improved the **markup language** used to create workflows by redefining element visibility by creating a **new element attribute** and adding **C++ compiler support**
 - Element visibility became more explicit which **reduced the risk of exposing internal data** to external users
- Created a development tool using **Closure** that allows developers to view workflows as different kinds of users
 - Bypassed the need to create fake user accounts for testing workflows and therefore **reduced development time** for workflows

OPTORO | SOFTWARE ENGINEERING INTERN

June 2016 - August 2016 | Washington, DC

- Learned **Ruby on Rails** by working on Optiturn, their warehouse software
- Created the **filetype_validation** gem, which validates CSV and plain text files, has **100% test coverage**, and has **over 11,000 downloads**
- Implemented a **duplicate photo detection algorithm** that prevents uploading similar photos to Optiturn and thus **decreased the growth rate of photo storage space**

NIBBLY | SOFTWARE ENGINEERING INTERN

May 2015 - July 2015 | New York, NY

- Improved Nibbly's iOS application in **Objective-C** by:
 - integrating the **Google Maps API** to allow users to input custom locations
 - refactoring controller logic to implement a tab bar controller
- Worked with **Flask** to manage the web app and integrate the **Yelp API** server-side

DUKE COMPUTER SCIENCE DEPARTMENT | TEACHING ASSISTANT

January 2017 - May 2017 | Durham, NC

- Hosted weekly office hours to help students understand **software design** and **JavaFX**

STARTING FROM SCRATCH | VOLUNTEER

February 2015 - May 2017 | Durham, NC

- Volunteered teaching local middle school students to program in **Scratch** in order to **increase youth interest in computer science**

PROJECTS

GREENVIEW | CHROME EXTENSION | CREATOR

April 2017 - Present

- Reduces webpage power consumption from HTTP requests by:
 - lazy loading images only on mouseover
 - blocking requests for loading webfonts and use local system fonts instead

TICKER STICKER | CHROME EXTENSION | CREATOR

August 2016 - Present

- Scans web page **DOM** for stock tickers and displays stock information in tooltips
- Uses **YQL** to lazily retrieve stock data on mouseover and cache data for later use

SPAWN | WEB APP | CO-CREATOR

October 2015 - Present

- Allows users to create and join spontaneous events (soccer match, lunch, etc.)
- Created with **Meteor** and uses **Bootstrap** to design UI elements
- Integrated Google Maps and Facebook for location fetching and social features