

# Vikash Kothary

Aspiring Software Engineer • Student

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## Key Skills

Fluent in	<b>HTML5, CSS3, JavaScript, Python, Flask, Java, SQL, XML, Android, Bash</b>
Working knowledge of	<b>Less, jQuery, PHP, Redis, SQL, Postgres, SQLAlchemy, Jinja</b>
Tools used	<b>Vagrant, Docker, Ansible, Selenium, Git, Linux, Ubuntu</b>
	<b>- Ability to thrive in a fast-paced work environment</b>
	<b>- Excellent problem solving skills, with the ability to complete tasks in the most efficient way</b>
	<b>- Able to master different techniques and understand technical processes quickly</b>
	<b>- Able to work efficiently on own initiative as well as able to contribute effectively within a team</b>

## Education

<b>King's College London (University of London)</b>	<b>September 2014 - Exp. August 2018</b>
MSCI COMPUTER SCIENCE	Strand, London
<ul style="list-style-type: none"><li>Key modules: Software Engineering Group Project, Cryptography and Information Security, Internet Systems, Distributed Systems, Database Technology, Software Engineering of Internet Applications, Network Security, Artificial Intelligence, Computer Vision</li></ul>	
<b>Nower Hill 6th Form</b>	<b>September 2012 - July 2014</b>
A-LEVELS	Pinner, London
<ul style="list-style-type: none"><li>A* in Mathematics, A in Computing, B in Further Maths, B in Physics</li><li>AS-Level: A in an EPQ on 'What makes a machine intelligent?'</li></ul>	

## Work Experience

<b>EDITED</b>	<b>June 2016 - September 2016</b>
SOFTWARE ENGINEERING INTERN	Farringdon, London
<ul style="list-style-type: none"><li>Developed and tested, from scratch, two caching databases for web scraped data and their translations. Allows faster translations and reduces the cost of translation API.</li><li>Fast cache: Redis database used for fast retrieval. Stores most recently used translations.</li><li>Long term cache: MariaDB Galera Cluster with SQLAlchemy master-slave configuration. Stores all translations done before.</li><li>Created a Private Python Package Index that is stored in a AWS server and accessible only by employees; contains all their proprietary python packages.</li><li>Wrote a migration script: Modify all python packages to use the new system using RegEx; create a release bash script to release on GitHub and upload to new system; release all packages with changes.</li><li>Developed package to identify any erroneous data stored in the database caused by errors when web scraping and apply a delta to fix the value with an extrapolated one.</li></ul>	
<b>MyKidsy Coding Classes</b>	<b>March 2015 - November 2016</b>
CODING TUTOR	Google Campus, Shoreditch, London
<ul style="list-style-type: none"><li>Taught Scratch in the beginner class and HTML, JavaScript in the advanced class</li><li>Lead classes with 5-10 students and their parents</li><li>Debugged code, explaining mistakes and answered questions from students</li></ul>	
<b>GCSE Computing, Nower Hill High School</b>	<b>September 2012 - April 2014</b>
TEACHING ASSISTANT	Harrow, London
<ul style="list-style-type: none"><li>One-to-one support to struggling/disruptive students, teaching HTML5, CSS3, JavaScript and Java</li><li>Emphasis on debugging code for the entire class (approx. 30 pupils), reinforcing material taught in class, teaching efficient programming practice, explaining mistakes and answering questions from students</li></ul>	
<b>Citrix Systems UK Ltd.</b>	<b>24th June 2012 - 28th June, 2012</b>
INTERN	Gerrards Cross, London
<ul style="list-style-type: none"><li>IT department: Shadowed technicians, working with server management and customer service.</li><li>Testing department: Reviewed and edited design documentation for newly created Android application.</li><li>Sales department: Assisted in setting up for an international sales presentation for the new Android application.</li><li>Engineering department: Peer programmed with another intern, a self-help website for Citrix customers to help solve common problems using JavaScript and JQuery.</li></ul>	

## Projects

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### Movie Narrator Python Application - GitHub

February 2017

TEXT GENERATION DEVELOPER

Southampton, UK

- Winner of the Bloomberg Prize at the SotonHack 2.0 hackathon event
- A narration application that used the ffmpeg library to sample images from a video; run Google App Engine image recognition and generate sentences to explain the scene
- Used an audio description dataset to build a model for sentences then generating Markov chains based on the image recognition keywords.
- Overcame the limited amount of training data available for the model by web scraping the descriptions of related videos on YouTube and adding it to the model

### KCL India Society Website - GitHub

August 2016

SOLO DEVELOPER / MARKETING COMMITTEE MEMBER

Strand, London

- A portfolio website created by me to improve the society's online presence.
- Built using HTML5 Boilerplate, Bootstrap, JavaScript, Less to generate code that is clean and easy to maintain
- Website optimized for mobile and sharing through social media such as Facebook and Twitter using meta tags
- Gathers data for the society using Google Analytics

### Languine Android Application - GitHub

February 2016

TEAM LEADER / APP DESIGNER

Strand, London

- A language application that delivers Spanish lessons to the user with a content management system to allow the client to add/remove lessons.
- The project manager for a team of 8 where I scheduled meetings, delegated tasks and liaised with the client
- I designed the entire user interface, which was implemented by my team and created the entire CMS backend

## Extracurriculars

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### KCL Robotics Society

Strand, London

VP OPERATIONS

January 2015 - July 2017

- Ran workshops: basic electronics (twice), Lego Mindstorms (twice), Arduino cars (once for university students, once for younger students)
- Assisted a Robotics PhD student in running a workshop for building automation robots in the agricultural industry
- Set-up and maintained society operations: debit card, domain emails, password manager, internal/external calendar, slack, shared data storage, web hosting, GitHub, social media

### KCL Tech Society

Strand, London

COMMITTEE MEMBER

July 2016 - July 2017

- Taught an 8-week beginner workshop on Android for beginners
- Hosted a 12-hour hackathon (MLH Local Hack Day) at KCL in a team of 4 with 30+ participants

## Achievements

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**Hackathon Prizes**, HackTrain 4.0; SotonHack 2.0; HackKing's 2.0; GreatUniHack

**Coursera Certificates**, Introduction to Interactive Programming; Crafting Quality Code

**Shodan Black Belt**, Jim Wilson's Karate Academy

**ASA National Swim Awards**, Levels 1 – 6

**Harrow Schools' Swimming Certificates**, Beginner, Intermediate, Survival, Water Safety Skills

**Duke of Edinburgh Silver Award**,

**The Challenge Award**,

**National Citizen Service Award**,

**UK Mathematical Challenge**, Junior - Gold Certificate; Intermediate - Silver Certificate; Senior - Bronze Certificate

## Interests and Activities

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In addition to my education and work, I have a lot of interest in various other things with my health being one of them. I enjoy regularly visiting my local gym after breakfast combining strength training and high-intensity cardio which helps me stay energised throughout the day. During the workout, I listen to popular non-fiction audio books or podcasts to advance my knowledge. I have also been learning to cook various cuisines of food since this is another key interest of mine. I am even making my way through a beginners' cookbook, aiming to make a new dish every week or two to awaken my taste buds. To wind down, I love TV shows or movies of various genres; whether it's action, comedy, romance, sci-fi and/or fantasy I appreciate them all, enjoying them on my PC that I built myself.

## References on Request

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