## **S SOURAV KUMAR**

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EDUCATION	Haldia Institute of Technology, Haldia, India B. Tech Computer Science & Engineering, 2018 GPA – 7.85
SKILLS	<u>Experienced</u> : Python · PHP · MySQL · C · Java · Android <u>Moderate</u> : GAE · Jinja · HTML · CSS · JavaScript · JQuery · MongoDB <u>Familiar</u> : JSON · Xml · AngularJS · C++ <u>Frameworks</u> : Django · Flask · Nette <u>Platforms</u> : AWS ( EC2 · RDS · Route 53 ) <u>Tools</u> : Git · Vim · SSH · ADT · Eclipse
OPEN SOURCE CONTRIBUTIONS	GitHub: https://github.com/souravbadami/ Oppia (Oppia Foundations)  Tool for collaboratively building interactive lessons.  Implemented protractor end to end tests category wise to easily find out the bug on Continuous Integration platform (Travis CI).  Designed the recently published module to extract and display the set of recently published explorations from GAE.  Implemented search module for collection editor.  Redesigned the pre-commit linter script to detect bad patterns.  Several major and minor bug fixes.  Project link: https://github.com/oppia/oppia/  Languages/frameworks used: Python, AngularJS, GAE.  Anitya (Fedora Infrastructure)  A cross-distribution upstream release monitoring project.  Implemented backend search results display for project search.  Modified existing timezone throughout to UTC.  Improved search results by adding a subquery or substring search functionality.  Several other bug fixes.  Project link: https://github.com/fedora-infra/anitya/  Languages/frameworks used: Python, Flask.  Zeroclickinfo-fathead/goodies ( DuckDuckGo ) https://github.com/duckduckgo/  DuckDuckGo Instant Answers based on keyword data files.  Created multiple IA's and fixed bugs.  Languages/frameworks used: Python, Bash.
WORK EXPERIENCE	Product Development Engineer ( GoJek )   September 2019 - Present  Working with the supply marketplace team for Gojek.  Languages/frameworks: Clojure, Ring.

#### Research Engineer (Honeywell Inc.) | November 2018 - September 2019

- Working with the in house startup team at Honeywell to deliver core Blockchain-based trading platform for Aerospace business.
- Architected doctrace, an end to end solution for aviation documents, transactions, etc.
  - Developed deep learning-based neural network models to identify and extract relevant information from historical aviation documents containing images.
  - Developed a data-lake component to sync and retrieve the blockchain ledger information. It accelerated queries by 10x.
  - Retrained OCR model using existing Tesseract 4 pre-trained model and internal extracted and corrected data to improve character recognition accuracy.
- Deployed health monitor for the blockchain platform which pushes heartbeat, status, etc.
- Languages/frameworks used: Python, NodeJS, Hyperledger Fabric, Cello, MongoDB, HBase, HDFS, Keras, Tensorflow, Blockchain, ELK Stack.

#### Google Summer of Code Mentor (OWASP) | April 2018 - August 2018

- I work as a mentor for OWASP's BLT project.
- Responsibilities: Managing and mentoring students for building the better version of the BLT project.
- Languages/frameworks used: Python, Django, AngularJS, C++.

#### Project Leader (OWASP) | February 2018 - Present

- I work as a project leader for OWASP's BLT project.
- Responsibilities: Leading the open-source development team, helping contributors with their patch submission and code review. Developing new features and integrations along the way.
- Languages/frameworks used: Python, Django, AngularJS, C++.

#### Software Engineer (Perpule 1Pay) | September 2017 - October 2018

- Working on backend systems to improve and develop the core functionality of the application.
- Languages/frameworks used: Python, Flask, Java, Spring.

#### CodeSprint Student 2017 (OWASP) | July 2017 - September 2017

- Worked on the BLT Project to improve the Bug Logging Tool's backend workflow by refactoring code and integrating linters.
- Added a vagrant development server as an alternative to virtual environment.
- Implemented localization and added support for German, French, Chinese language.
- Project Link: <a href="http://github.com/OWASP/BLT">http://github.com/OWASP/BLT</a>
- Languages/frameworks used: Python, Django, JavaScript.

#### Software Engineering Intern (Perpule 1Pay) | July 2017 - August 2017

- Designed a data-loading tool to incorporate data from various sources to the internal systems.
- Languages/frameworks used: Python, Flask, Java.

#### Software Engineering Intern (Linkbynet Vietnam) | January 2017 - March 2017

- Implemented log and event management utility for pushing event logs from Logstash to Azure Event Hub.
   <a href="https://github.com/souravbadami/OPS2.0/tree/master/lemur">https://github.com/souravbadami/OPS2.0/tree/master/lemur</a>
- Implemented automation application script to process and manipulate consumer data on top of Spark and push the data to Amazon s3 using boto.
- Applied data engineering and machine learning on internal tickets to detect parallelism based on language and other factors.
- Languages/frameworks used: Microsoft Azure, Python, Scala, Spark, (ELK) ElasticSearch, Logstash, Kibana, (ETL) Talend Open Studio for Big Data.

#### Software Engineering Intern (RiteKit) | October 2016 - December 2016

- Added functionality to fetch the tweets from a twitter list using code bird library.
- Converted some existing pages to their AMP alternative.
- Fixed multiple bugs on ritetag and ritepush.
- Languages/frameworks used: PHP, Nette, Latte, JavaScript, RESTful API, AMP.

### Core Project Maintainer (Oppia Foundations) | March 2016 - March 2017

- I am responsible for the *critical user journeys* on the Oppia platform where I look into the user experience.
- Triage and prioritize incoming issues and review the technical design and functionality of incoming PR's to the codebase.

#### Campus Ambassador ( HackerEarth & HackerRank ) | May 2015 - Present

 Designed and prepared problems for algorithmic competitive challenges for the organizations and worked as an ambassador for our campus.

#### **P**ATENTS

# SYSTEMS AND METHODS FOR LEASING EQUIPMENT OR FACILITIES USING BLOCKCHAIN TECHNOLOGY

**Abstract**: Leasing equipment and vehicles, such as aircraft, may be complex, time-consuming, and inconsistent across the many organizations that participate in the leasing process.

#### **PROJECTS**

#### MyCleanIndia (Web), November 2016

A toolkit which gives us the power to analyze the health situation in the country by effectively mapping the location with its current status and generating reports over it. In all, it uses crowdsourced data to make India a cleaner place.

- Code: <a href="https://github.com/mycleanindia/mycleanind
- Live: <a href="https://mycleanindia.herokuapp.com">https://mycleanindia.herokuapp.com</a>
- The application got featured on <u>YourStory</u> and <u>OpenSourceForYou</u>.
- Languages/frameworks used: Python, Django, Google Maps API, OAuth 2.0

#### CalendarApp (Web), September 2016

CalendarApp is a web-based calendar application which lets the user manage their events on a calendar and sync them with the google calendar.

- Code: <a href="https://github.com/souravbadami/calendarapp/">https://github.com/souravbadami/calendarapp/</a>
- Live: <a href="https://calendarapplication.herokuapp.com">https://calendarapplication.herokuapp.com</a>
- Languages/frameworks used: Python, Django, Google Calendar API.

### Auto Sleep ( Python Script ), August 2016

This script automatically detects when there's no one nearby and sends the system to sleep mode.

- Wrote a simple script using OpenCV API to detect motion using the webcam and calculates no motion time using threading and ring buffer.
- Code: <a href="https://github.com/souravbadami/autopilot/">https://github.com/souravbadami/autopilot/</a>
- Languages/frameworks used: Python, OpenCV.

#### BookShelf (Android + Web), June 2016 – July 2016

An application that lets you exchange study materials in your school.

- Code: <a href="https://github.com/souravbadami/bookshelf/">https://github.com/souravbadami/bookshelf/</a>
- Languages / frameworks used: Python (Backend), Java (Frontend), MySQL, Volley, JSON, Xml, PHP, MySQL, HTML5, CSS3.

#### Baggage Friend (Web), Dec 2015 – Feb 2016

A baggage sharing platform that connects travelers together.

- Designed the front end as well as the backend of the application.
- Live: <a href="https://www.baggagefriend.com/">https://www.baggagefriend.com/</a>
- Languages / frameworks used: PHP (Backend), JavaScript, JQuery, Ajax, MySQL, HTML5, CSS3, Bootstrap, JSON, Google Maps API.

#### InstaConnect (Web), Oct 2014 – Jan 2015

A file-sharing application for local networks.

- A simple web application which lets the user download content on a local network.
- Languages / frameworks used: PHP, MySQL, HTML, CSS, Bootstrap, Apache.

#### **A**CHIEVEMENTS

- Cleared qualifiers of Google Code Jam 2016.
- Secured All India Rank 85th in Code-O-Shuffle, IIT Kharagpur.
- Secured All India Rank 16th and 19th on Code Hunt 1.1 & Code Mania 4.0 on HackerEarth.
- Ranked 97th on General Aptitude Examination throughout the state.
- Cleared round 1 of CodeVita 2016.