

SOURABH LAL



Education

École polytechnique fédérale de Lausanne (EPFL), Switzerland

M.Sc. in Computer Science with a specialization in Information Systems. Class of 2018. Courses include: Intelligent Agents, Natural Language Processing, Machine Learning, Applied Data Analysis, Information Security and Privacy, HCI.

Carnegie Mellon University, USA

Study abroad. GPA: 3.73 (4.00 is best, 0.00 is worst). Courses include: Applied Computational Intelligence Lab, Web App Development, Creating Intelligent Robots, Mobile Robot Programming Lab.

Jacobs University Bremen, Germany

B.Sc. in Computer Science. Class of 2015. GPA: 1.85 (1.00 is best, 5.00 is worst). Courses include: Machine Vision, Software Engineering, Algorithms and Data Structures, Operating Systems.

Projects

Benchmarking general and specific event detection approaches

Semester project at the LSIR lab at EPFL which involved the development and implementation of 4 different event detection algorithms and evaluating their performances by trying to detect events on Twitter.

Hackathon Project: DoctorBot/PocketDoctor

Developed a chatbot for medical diagnosis. Can be conversed with through SMS or through Facebook messenger. Built using a Flask server running on Heroku. Twilio & Facebook Messenger APIs for interface and Infermedica API for diagnosis.

Data Collection with CoBot

Iteratively developed a path planning algorithm that enabled Dr. Manuela Veloso's CoBot robots to opportunistically collect temperature and humidity data from less recently explored locations by maintaining historical maps of exploration of the Gates-Hillman Centre, Carnegie Mellon University.

Remindoor

Developed a prototype for a smart door through an Android app that simulates the interactions of the smart door. The Remindoor app consisted of 2 parts: A Virtual Doorman that interacts with visitors, then records and reports all such interactions to the resident, and a Reminder alert system which provides the resident with all important information and reminders he will need before he leaves home. Used Android and Snapdragon SDKs along with OpenWeatherMap, Google DistanceMatrix and USA Today Breaking News APIs in order to develop the app.

Race Car Simulator

Developed and implemented a race car simulator in a team using C++. Given a file with the AI the car uses, the simulator interprets the language on the client, and sends commands to the car over the network, guiding it around obstacles to the finish line.

Experience

CERN

08/2016 - 01/2017

Intern in the CDS team. Developed features for the new video player module in the CERN Document Server (an open source project). Worked with Flask, Jinja2, Angular, SQLAlchemy and PostgreSQL.

Cleversoft GmbH

06/2014 - 07/2014

Intern in the Java Engineering team. Worked on the development of the Infonds financial services web application.

Jacobs University Bremen

08/2013 - 12/2013

Teaching assistant for the course "Computer Architecture". Responsible for making and grading assignments, conducting weekly tutorials based on course material.

Fraunhofer ITWM

06/2013 - 08/2013

Intern in the Optimization department. Individually developed a library that pre-computes the non-convex solution space of pareto optimal solutions. Developed using C++, with the Boost UBLAS library and QHull. Optimized the solution using n-dimensional quadrees and binary space partitions.

Leadership & Extracurriculars

GitHub Campus Expert, EPFL

06/2017 - present

Supporting the student community by providing workshops, talks, encouraging out-of-class projects and helping at events such as hackathons and tech conferences.

LauzHack Founder and Main Organizer

03/2016 - present

Founded EPFL's first global hackathon series. Main organizer of the 2016 event which had 185 participants and 13 sponsors. Part of the organizing team in 2017, responsible for fundraising and participant communications.

University Student Government (USG)

10/2013 - 06/2015

Member of 5-person Housing and Facilities Committee, responsible for maintaining and improving facilities on campus based on the student body's requirements. From January 2015, I became chair of the committee.

Awards

MLH Prime EU, London 2017 – JP Morgan Prize for Best Hack for Social Good

KairosHacks Barcelona 2015 – SkyScanner API prize.

jacobsHack! Winter 2014 - 3rd prize + USG sponsor prize.

Jacobs University - Merit based 10,000 Euro Scholarship per year (2012-2015)

Skills

Development: Python, Django, Flask, Java, Android, HTML5, CSS3, JavaScript, C++, C

Other: Git, GitHub, LaTeX, CLI, Unix, Windows, Agile software development