Roger Solis

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Education

Texas A&M University   *College Station, Texas, USA*

M.S. IN COMPUTER SCIENCE, GPA 3.75/4.0   *Expected August 2019*

- Research assistantship with stipend - 1 year.
- Scholarship from the federal government of Mexico, through the National Council of Science and Technology (CONACYT) - 2 years.

Autonomous University of Yucatan   *Merida, Yucatan, Mexico*

B.S. IN COMPUTER SCIENCE, GPA 3.64/4.0   *August 2015*

- Valedictorian, Computer Science, class of 2015.
- Summer internship at Texas A&M by the Mexican Chamber of Electronics, Telecommunications and Information Technologies (CANIETI).

Programming Languages and Software

	Most experience	Less experience	Some experience
Languages	Java, JavaScript	MATLAB, Python, Objective-C, SQL	Ruby, C/C++, Bash
Software	Android Studio, Git, Netbeans, MongoDB	Docker, AWS, Jenkins, MEAN stack	Jira, SAP

Work Experience

Texas A&M University   *College Station, Texas, USA*

RESEARCH ASSISTANT   *Aug. 2018 - PRESENT*

- Research on applied Machine Learning for Human Activity Recognition on data collected from wearable devices.
- Developed Android apps for smartphones and wearable platforms for improved data collection and annotation.
- Authored "A Human-centered Wearable Sensing Platform with Intelligent Automated Data Annotation Capabilities", IoTDI 2019.

Kwan Tecnologia   *Merida, Yucatan, Mexico*

SOFTWARE ENGINEER & DEVOPS   *Sep. 2015 - Aug. 2016*

- Built a web app for coupon management using MEAN stack and Mocha for unit testing as part of the Innovation Group.
- Managed the MongoDB database and was responsible for creating scripts to access the data efficiently in a geolocated setting.
- Set and managed continuous integration using Jenkins to automate the testing and deployment process.
- Created and managed AWS instances for diverse development environments.

DEVOPS

- Performed DevOps tasks remotely for Agralogics (CA, USA).
- Found and addressed undocumented bugs in the AWS deployment pipeline, saving developers 1 hour per release.
- Maintained the web app deployment environment and existing automation scripts and created new app instances to match team needs.
- Worked with bash/python/ruby scripts, Git, Jenkins, and Docker containers.

Productos de Harina Donde S.A. de C.V.   *Merida, Yucatan, Mexico*

SOFTWARE ENGINEER INTERN   *Nov. 2014 - May 2015*

- Designed and implemented an inventory module to track materials inventory for expense assessment using VB.NET and SQL scripts.
- Integrated the module with their SAP software using ABAP programming.
- Used Git for version control and Jira for task management.

Projects

IOS RESEARCHKIT CONTRIBUTION

- Designed Objective-C module that captures heart rate information using an iOS device's camera.
- Submitted module to Apple's open-source ResearchKit library (https://github.com/ResearchKit/ResearchKit/pull/981).

DESTRESS – EMAIL FILTER

- Created Android app and Flask back-end service to identify stressful email content using Google's sentiment analysis tools.
- Adapted UI dynamically to show users which emails they should address based on current stress levels measured by a wearable sensor.

ACC2HR – HEART RATE ESTIMATION FROM ACCELEROMETER SIGNALS

- Created a dynamic regression model in MATLAB based on accelerometer information to predict heart rate when exercising.
- Aimed to reduce energy consumption in smartwatches by alternating between measuring heart rate with dedicated sensor or prediction model.

BREATH CONTROL – BIOFEEDBACK APP USING ROBOTS AND WEARABLE SENSORS

- Built relaxation app for Android to teach users slow, deep breathing by controlling a robot with breath patterns measured with a Bluetooth wearable sensor.

SHARE YOUR STORY – WEB APP FOR VIDEO SHARING

- Developed a video testimonial recording and sharing web app using HTML5, Bootstrap, and Python (Flask).