

Inko Elgezua Fernández

ACADEMIC BACKGROUND

09/2010 - 03/2014: PhD in robotics at Waseda University (Fujie Laboratory), Tokyo, Japan.

The goal was to teach a robot how to insert a needle into soft tissue guiding itself by “sense of touch” as a physician would do. [Data processing and analysis was done in Python with robot control in C++]

Keywords: Statistical Modeling, Bayesian Classification, k-Means, kNN, Markov Chains, Intelligent Robot Control.

03/2005: Master in Mechanical Engineering at the Faculty of Engineering (TECNUN) of the University of Navarra, Spain. Title: “Communication and Interaction with Vehicle Electronic System using a PDA Device” [C/C++].

WORK EXPERIENCE

8/2014 - 12/2015: Data Scientist in educational startup ClassDo Inc. (Tokyo):

- Analysis, tracking and report of online KPIs and marketing campaigns. Suggest strategies based on those analyses. [Python for analysis and spreadsheets for reporting]
- Modelling user activity (funnel, segments, learning patterns, etc.) as well as reporting for frontend development. [Python: logs processing and data mining]
- Coordinate day-to-day operations while CEO was in business trips.
- Development of classroom user interface and integration with external APIs [Javascript and Ruby (on Rails)].

03/2014 - 11/2014: Freelance data scientist: participated in development of a classifier to detect a particular heart disease from ECG signals [Python + Numpy/Pandas/Matplotlib]:

- Created pipeline to load and process input data files (approximately 3Gb per file)
- Selected parameters to train the classifier.

04/2007 - 06/2010: TRW Automotive (Düsseldorf, Germany). Design Engineer in EPS (Electrically Powered System) steering systems, among other tasks:

- Calculation and Monte Carlo simulation (mostly Matlab) of tolerance analysis and assemblies: results were used for design, cost reduction projects and end-of-line quality control tests.

06/2006 - 12/2006: TRW Automotive (Birmingham, England). Product Engineer in EPS:

- Analysis and approval of experimental results for design changes, new suppliers and components.
- Responsible for validation plans of new or design changes (experiment design)
- Investigation and resolution of problems related to design or assembly process in production following 6 Sigma method.
- Technical support to production, quality and development departments.

06/2005 - 05/2006: TRW Automotive Spain (Pamplona, Spain) as Product Engineer in EPS, area of optical sensors, among other tasks:

- Control and report production output: day-to-day, time series, line-to-line, by suppliers, etc.
- Implement tests of changes in design or supplier and report results.
- Modelling and simulation (Monte Carlo) of optical sensor with Matlab. Model proved that results of end-of-line test weren't reliable, that led to a revision of the test rig which resulted in a reduction in false positives increasing production yield in 5%.

- Participated in 6 Sigma projects for improvement of design and assembly of optical sensor in collaboration with production, quality and R&D departments.
- Collaborative actions and improvements in design and assembly resulted in an increase of production yield of 30% in sensor assembly.

OTHER WORKING EXPERIENCE

05/2013 - 03/2014: Part-time lecturer of Algebra and Calculus at the Faculty of Information Technology of Tokyo Denki University (Part-time work during PhD).

09/2010 - 03/2013: Research Assistant by Global Robot Academia, Waseda University (Part-time work during PhD).

COMPUTER SKILLS

	Over 5 years	Over 1 year
Programming Languages	Python, C/C++, Java, SQL, HTML, Javascript	R, Hadoop, Spark
Mathematical	MATLAB/SIMULINK, Minitab	
Others	Git, MS Office, OpenOffice, MS Project	

LANGUAGES

Fluent	Intermediate	
Spanish ¹	German	¹ Mother tongue
English	Japanese	

RELEVANT COURSES

- Green Belt Six Sigma
- 8D Problem Solving

OTHERS

- 04/2014 - 03/2015: Invited researcher at Fujie Laboratory, Waseda University.
- Awarded JSPS Grant-in-Aid for Young Scientists B (25750191) from the Ministry of Education, Culture, Sports, Science and Technology of Japan. (30% acceptance rate)
- Awarded G-COE Scholarship for young researchers by Waseda University.

PERSONAL INTERESTS

Travelling, reading, learning about anything not work related (art, history or sociology for example), building models and robots.