Eduardo Poleo

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Chemical Engineer

Performance Profile

Proactive Chemical Engineer M.Sci graduate with experience in EPC, personnel supervision and environmental bio-technology. Capacity of implementing heuristics and regulations in industrial design. Ability to work independently or as part of a team to advance organizational goals. Resulted-oriented individual with journal publications, exposition and congress awards, and a track record of several successful experiences.

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| Core Development Skills | Feature Implementation | Supporting Skills |
| TDD in Ruby (Rspec) | Responsive Layout (Bootstrap) | Vim/Tmux |
| TDD in Rails (Rspec + Capybara) | Action mailer & Mailgun | Bash |
| HTML&CSS | Amazon S3 Integration | Prototyping (Balsamiq Mockups) |
| Version Control (Git + Github) | Carrierwave | Technical Writing/Blogging |
| Deployment (Heroku) | Background Jobs | Research & Development |

Projects

Myflix

Checkit

Qoveflow

Myflix

Myflix is clone of Netflix that allows users to watch videos on demand, add videos to their watching and follow other users activity. Technical Features: Comprehensive test suite with over 180 tests (Rspec/Capybara), and non-trivial system integration such as, Amazon S3, Carrierwave, Payment handing with Stripe.

Check-it

Check-it is a todo application where users can store projects and tasks. It provides an intuitive and responsive UI that makes it easy to manage tasks and keep track of your progress.

Qoverflow

A comprehensive test suite with over 160 test cases using Rspec for unit and functional testing, and capybara/Rspec for important business workflows.

* Non-trivial Mail delivery system featuring mailgun running as a sidekiq background process and deployment to Heroku with Unicorn server for more efficient use of dynos’ resources.
* Must-have service integration such as payment handling with Stripe, photo upload with carrierwave and integration with Amazon S3.
* Fully tested user authentication system written from scratch including “Forgot Password?” functionality.

Development

Carrierwave

Relational Databases

Technical writing/Blogging

Research and Development

Education

* **Master of Applied Science, M.Sc** — Department of Chemical Engineering, Queen’s University, Kingston, Ontario.
* **Bachelor of Engineering (Chemical Engineering)** — Department of Thermodynamics and Transfer Phenomena, Caracas, Venezuela.

Relevant Experience

**Research Assistant** — Queen’s University**,** Department of Chemical Engineering,Kingston, ON, Daugulis Research Group. (2011-2013)

Developed analytical applications for the detection of multiple contaminants in various phases. Studied how polymer structure and properties determined polymer-contaminant interactions in water solutions. Carried out several bench-scale biodegradation experiments at controlled conditions.

* Improved degradation rate of contaminants in water by 98% compared to other conventional treatment strategies.
* Pioneered the first rational and systematic method for selecting effective polymers by identifying relevant property trends and partitioning capacities of 51 different polymers.
* Troubleshot and performed basic maintenance to a gas chromatograph (GC) and restored to optimal functionality. Coached new lab members on proper use and maintenance of the GC.
* **Published two original scientific publications in internationally recognized journals:**

J. Hazard. Mater., 254-255: 206-213 (2013)

J. Chem. Technol. Biotechnol., 89: 88-96 (2014)

**Field Supervisor** — SIDETUR, Caracas, Venezuela. (Jun 2010- Dec 2010)

Led and motivated a team of workers and crane operators to coordinate the transportation, classification, and processing of 130 tons of scrap metal per day. Oversaw the scrap metal processing from supply to product delivery and proposed process improvements.

* Achieved the monthly scrap-metal production goals, (approximately 3200 tons), 4 times over a 6 month period.
* Proposed and implemented a logistic schedule to regulate the order of operations in the field. This schedule improved the overall production efficiency by approximately 20 %.
* Achieved a perfect record of zero accidents within the six month contract period.

**Research Assistant** — Åbo Akademi, Department of Chemical Engineering, Åbo, Finland. (Jan 2009-Aug 2009)

Developed potential reaction schemes based on experimental data and organic reaction mechanisms. Performed parameter estimation for 14 different models, and carried out corresponding sensitivity analysis and statistical comparison.

* Developed a statistically sound kinetic model for the aforementioned reaction that increased complexity and accuracy over previous models by 57 %.

**Process Engineering Intern** — INELECTRA (**EPC**), Caracas, Venezuela. (Aug 2007-Oct 2007)

Developed a manual for the design of various thermoelectric power plants processes. Gathered, classified and standardized approximately 75 technical references and calculation spreadsheets.

* Created a manual that considerably improved the transfer of information amongst engineers within the process department of the company.
* Actively participated in the design of a cooling tower and a vent pipe and performed mass and energy balances and hydraulic calculations for demineralized water systems.

Extracurricular Activities and Interest

**Teaching assistant** — CHEE 221 “Elementary principles of chemical processes” Department of Chemical Engineering, Queen’s University, Kingston, Ontario. (September 2012-December 2012)

Prepared and marked assignments and provided student support and feedback.

* Delivered high level tutorials and a fair marking criteria to boost student performance.

**Social and sport coordinator** — CEGSA (Chemical Engineering Graduate Student Association) - Queen’s University, Kingston Ontario. (2012-2013)

Planned, budgeted and publicized sport and recreational activates for the Chemical engineering graduate community.

* Coordinated 6 different sport events for the graduate chemical engineering community. The average attendance was approximately 35 people.

**Executive coordinator** — Chemical Engineering Student Commission, Simon Bolivar University, Caracas Venezuela. (Jan 2008-Jul 2008)

Coordinated and fund-raised chemical engineering-related events on the university campus.

* Raised funds and organized along with other 10 team members the 5th “Role of the Chemical Engineer in the Industry Congress USB”. This was a 2 days congress with 12 speakers representing relevant local and international companies in the chemical and industrial engineering field. Attendance exceeded 100 guests.
* Coordinated experimental section of the chemical engineering stand at the 3rd “Career Exposition Fair USB”. The exhibition display by the chemical engineering commission won 1st place in the People’s Choice Award

References

* Andrew Daugulis, Ph.D, P.Eng | Chem. Eng. Dpt. Queen’s University | Tel: 613- 5332784 | Email: [andrew.daugulis@chee.queensu.ca](mailto:daugulis@chee.queensu.ca)
* Sabrina Di Scipio, Associate Professor  | Department of thermodynamics and transfer phenomena, Simon Bolivar University | Tel:+58-212-9063754 | Email: [sdiscipio@usb.ve](mailto:sdiscipio@usb.ve)

Visa Status

* Open Work Permit: Date issue 2013/05/14 | Expiry date 2016/05/14
* Permanent Residence: Application in progress. Expected delivery date December 2014