Uma **Zalakain**

COMPUTER SCIENTIST · SOFTWARE DEVELOPER

Glasgow

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Research Interests

- Programming language theory, type theory.

- Reflective verified problem solvers.

Academic Qualifications

University of Glasgow *Glasgow*

MSc COMPUTER SCIENCE *2018 - present*

University of Strathclyde *Glasgow*

BSc HONS COMPUTER SCIENCE *2014 - 2018*

First class honours. Awarded Andrew McGettrick prize for **outstanding performance**.
Thesis title: Evidence providing problem solvers in Agda.
Supervisor: Conor McBride.

Experience

GISA Elkartea *Errenteria*

ASSOCIATE *2010 - present*

- Non-profit organization for the promotion of libre software and the translation of software to Basque
- Developed multiple libre web applications for a local radio station
- Translated multiple libre Android applications to Basque

TextLab *Glasgow*

WEB DEVELOPER & TEXT ANALYST *2016 - present*

- Joint research project between the English and Computer Science departments at Strathclyde, see `http://losp.us/`
- Developed a small Haskell library that parses and analyses the TEI-encoded texts provided by the Folger Shakespeare Library
- Developed an evolving static website that publishes our class' work
- Collaborated in meetings with the staff from the Folger Shakespeare Library at Washington, D.C.

A2H Software Factory *Donostia*

SOFTWARE DEVELOPER *2014 - 2016*

- Developed small web applications for internal company usage
- Developed a content publishing system focused on third-party integration
- Developed a data extraction and visualization library

University of Strathclyde *Glasgow*

LAB DEMONSTRATOR *2017*

- Demonstrated User and Data Modelling labs
- Demonstrated Programming Foundations

Skills

Programming	Haskell, Agda, Python, JS, Java, Rust, C, SQL, LaTeX
System administration	Git, NixOS & GNU/Linux administration, Bourne shells
Web	Django, AngularJS, HTML5, LESS, SASS
Languages	English, Spanish, Basque, basic Dutch and French

Honors & Awards

2018	**Andrew McGettrick prize for outstanding performance (£400),** University of Strathclyde	*Glasgow*
2017	**Best overall third year student (£200),** Baillie Gifford	*Glasgow*
2014–2017	**Dean's Certificate for excellent results,** University of Strathclyde	*Glasgow*
2014	**Winner of the Bloomberg challenge,** StrathHack	*Glasgow*

Tools

nixpkgs (contributor), Contributed with several packages

django (contributor), Contributed with several pull requests

presburger-solver (developer), Verified solver for Presburger Arithmetic in Agda

netsim (developer), Simulator for synchronized periodic exchanges of distance vectors across a network

adtrees (developer), Modelling and evaluation of attack defense trees

lightweight-motion (developer), Lightweight RPi-ready motion detection for USB and HTTP(S) cameras

Participation

MirageOS retreat — *Morocco*
PARTICIPANT — *2019*
- Newcomer to the community and project

ICFP — *USA*
PARTICIPANT — *2018*
- Attended the Programming Languages Mentoring Workshop

EuroPython — *Spain*
PARTICIPANT — *2016*

Jornadas de Conocimiento Libre — *Madrid*
PRESENTER OF <GPG: UNA INTRODUCCIÓN> — *2016*
- A brief introduction to public key encryption using GPG, management of keys, web of trust and keysigning

Ud4kamp — *Gernika*
PRESENTER OF <EL LADO OSCURO DE GOOGLE> — *2012*
- Aims to raise awareness of the power that we hand over to organizations like Google

Arrosa Sareko topaketak — *Bergara*
PRESENTER OF <SEGURTASUNERA SARRERA> — *2011*
- Security tips for libre radios and grassroot movements

Hackmeeting — *Spain*
PARTICIPANT — *2009-2013*
- Decision making, organization and physical work
- Attended multiple talks and workshops

Lakaxita Hacklab — *Irun*
MEMBER — *2010-2013*
- Lecturer in a brief introduction to Python
- Assistant in a short Django workshop
- Participant in debates involving technology and ethics

Membership

Women Who Code

Member