Andres Ixim Sebastian Oliva Casado

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Statement	Software generalist inspired in building solutions that deliver social impact. Specific interests in graphics, large scale data analysis and user experience focused development.
Languages	**Primary** Python, Java, JavaScript **Others** C/C++, SQL, PHP, Ruby, C$^\sharp$, TEX
Universitary Education	*Undergraduate Student,* Sciences and Systems Engineering *Undergraduate Student,* Applied Physics Universidad de San Carlos de Guatemala, Finished curricula for Sciences and Systems Engineering, 2017

Projects and Experience

Tech Lead Afinidata   **2019 - April 2020**

Lead Developer for a parental early stimulation chatbot.

Creation of APIs, fixes and building features, continous integration, QA and deployment processes. ETL and Data Analyisis.

- Testing frameworks, reducing code quality incidents, code coverage from 0 to 80%.
- Devops: Re-deployment across AWS cloud. Ansible deployment scripts. Database recovery.
- Data engineering: homogenization of inputs, creation of inner feedback and introduced collection of several user events.
- Data analysis: aide in creation of ML recommendation engine, creation of dashboards, user cohort analysis and status indicators.
- Python, Django, MySQL, Linux, AWS EC2, AWS RDS, Travis CI, SQLite, Chatfuel

Provider Consorcio Observatorio Electoral Guatemala / NDI   **January - August 2019**

Data collection system for events related to the electoral event, candidates and observation.

Metrics on political ads, unfair or unlawful mass media use, threats or violence, unregistered rallies, etc.

- Large scale storage of complex sample instruments.
- Training and support to over 300 volunteer observers.
- Backup, recovery protocols, service maintenance and security support.
- Data cleanup and quality validation.
- ODK - Ona, PostgreSQL, Jupyter, Pandas, Linux, Docker Compose

Tech Lead   **2018**

Nómada – Guatemala

Tech and strategy for Nómada, an independent progressive online journal.

- Development of a tech strategy fit for independent media.
- Frontend web development.
- Performance and accesibility optimization for web.

- Design and implementation of a digital security policy for high-value and high-risk targets.
- Web, Wordpress, Javascript, MySQL, Python, D3.js

Technical and Publisher Support Open Contracting **January - September 2018**
Iniciativa Latinoamericana por los Datos Abiertos / OCP
Technical support for publishers of Open Contracting Data Standard documents on public procurement.
- Supporting publisher's needs related to the standard.
- Validation and analysis of published data in the OCDS.
- Design and implementation of tools for extraction, storage, processing and analysis of OCDS data.
- Reporting on validation status for publishers and support on suggesting ways to improve data publication quality.
- JSON, JSON Schema, Python, PostgreSQL, Google Big Query

Fellow School of Data **2017**
School of Data / Open Knowledge Foundation
Aide in data awareness, education and data driven decisions for activists, journalists and social agents.
- Collaboration with multiple stakeholders on building software platforms for social impact.
- Support for projects related to the Open Contracting standard.
- Assisting on creating the national curricula on basic data education for state institutions.
- Jupyter Notebooks, Python, Neo4J, SQLite, Spreadsheets, Design Thinking, User Oriented Design, Hy

Senior Software Engineer **January - September 2016**
Startrack S.A.
Software for commercial GPS tracking
- High concurrency processing, network sockets, database integration, migration to microservices.
- Testing, packaging, deployments and build processes, and documenting.
- Large scale database deployments management (15 DBs, 20-100 GB).
- Java, PostgreSQL, Python, Kotlin, Shell

Student Developer, Google Summer of Code **2014, 2015**
FOSS ASIA / FashionTec – Google Inc.
Software for Knitting Machines - Knitapps, Knitlib, AYAB GUI
- Implementation of protocols and a library for controlling knitting machines.
- API design for several clients (Web, Python library) and devices.
- Asynchronous Serial communication, packaging, testing and documenting.
- User Interface / User Experience.
- Python, JavaScript, WebSockets, Arduino, PyQt

Teaching Assistant, Ad Honorem **2014, First Semester 2015**
Universidad de San Carlos de Guatemala – Engineering Faculty.
- *Operating Systems 2 (2014, 2015):* Introduction to Linux kernel, kernel module development, system calls, virtualization, remote process execution. *C, Git*
- *Algorithms and Data Structures (2015):* Algoritmic complexity, Sets, Lists, Dictionaries, Trees (binary, auto balancing, b-trees). *Java, C*

Freelance Software Developer / Project Manager **Febuary - May 2014**

- Multinational ad campaign tie-in card game (80 000+ users)
- Team lead, Programmer, SysAdmin
- Java, Play Framework, Scala, OAuth Authentication, MySQL

Software Engineer   **January 2013 - December 2013**
4 Acertijos – Guatemala City.
- *Systems Architect, Data Analysis*
  Software for enterprise vending workflow analytics and optimization.
- *Team and Project Management*
  Managed the development of a multiplatform mobile real estate sales app.
- Roles as salesperson, exhibit spotter, photographer, Glass explorer, etc.
- Responsive Web Development, HTML 5, Android, Python, .NET MVC 4.

Software Engineering Intern   **June - September 2012**
Google Inc.
App Engine – San Francisco.
- Python, App Engine Datastore, SQLite.
- Distributed Systems, Non-relational storage.
- Learnt automated Build Tools, testing, code craftmanship.

Projects and   *Student Developer, Google Summer of Code*   **2011**
Experience   openSUSE project – Google Inc.
(cont.)   Taxi - an online ICC color profile calibrations sharing webservice.
- Python, MongoDB, Werkzeug - WSGI, JavaScript
- Collaboration with the OpenICC group on colour management techniques.
- Emphasis on non-blocking, parallel dispatch of binary profiles.
- Presented in Nuremberg, Germany, for the openSUSE Conference 2011

Developer   **2010+**
Shoebot: Free Software (Python/Cairo based) drawing bot
- Python, PyGTK, PyCairo, Pango, PIL
- Implemented typographic support, bugfixes, style, docs, etc.

Webmaster   **2009-2011**
InGame Magazine - Promedia Editorial: Pioneering videogame magazine in Latam.
- Website, Forum management
- jQuery, PHP, MySQL, Wordpress.
- Wrote and published articles on printed media, video.

Contests and   *Chispa*   **March 2015**
Awards   Buenos Aires, Argentina
First Prize: Desarollando America Latina 2014
On-site incubation for two weeks on Social Entrepreneurship.
Design Thinking, Solution-based design. Tech as a change agent for society.

Space Apps Challenge   **2014**
Guatemala City, Guatemala
Project: Urban Data
Award: Global Award Finalist, First Place Local Award

Courses and training	*Low Cost Solutions for Wireless Connectivity*	**November 2011**

Courses and training | *Low Cost Solutions for Wireless Connectivity*   **November 2011**
International Centre for Theoretical Physics (ICTP), TWAS
Guatemala, Guatemala
Training on implementation of Low Cost Networking in the developing world.
Wireless Networking and internet access, IPv6, antennas and radio physics theory.

Mathematical School of Latin America and the Caribbean (EMALCA)   **May-June 2011**
Unión Matemática de América Latina y el Caribe Latin America (UMALCA), Centre International de Mathématiques Pures et Appliquées (CIMPA), International Mathematical Union (IMU)
San Salvador, El Salvador
Courses on Introduction of Dynamical and Chaotic Systems, Markov Chains, and Numerical Methods for the evaluation of PDE.

Activities and Hobbies
Free Software supporter.
Digital and Analog Photography.
Graphic Design and Typography aficionado.
Basic knowledge in xilography, engraving, woodcarving and metalworking.
Scientific Glass blowing.