Pablo **Gamito**

SOFTWARE ENGINEER

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Education

Imperial College London   *London, UK*
MEng in Computing · First & Second Year Results: First Class Honours   *Oct. 2017 - Exp. Jun 2021*
- Sponsored to represent Imperial College in the Northwestern Europe Regional rounds of the International Collegiate Programming Contest.
- Developed the core components of a bare-bones operating system in C, as part of the OS course: virtual memory, system calls, scheduling.
- Developed a compiler and an interpreter for a C-like language with syntactic & semantic analysis.

Cité Scolaire Internationale   *Lyon, France*
International Option of the French Baccalauréat with scientific concentration · 18.14/20 Average   *Sep. 2013 - Jun. 2017*

Work Experience

Google   *Zurich, Switzerland*
SOFTWARE ENGINEERING INTERN   *May. 2020 - Oct. 2020*
- Converted the main developer tool used to debug window transitions in Android into a fully-featured and polished product that is now simpler and much more efficient to use. This required working on low level native Android code all the way up to a high level web interface.
- Designed and implemented solutions to visualize, explore, and navigate traces recorded on Android devices, which reduced the number of steps and time needed to find the origin of a bug leading to a more productive tool for engineers.
- Implemented new native tracing mechanisms in C++ to trace events across Android processes, so that information that provides a clearer and deeper view into the system can be visualized in the tool, making it easier to pinpoint the exact source of a bug without leaving the tool.
- Added integration with developer workflows, in particular with an internal bug tracking tool to streamline the bug fixing process.

G-Research   *London, UK*
SOFTWARE ENGINEERING INTERN   *Jun. 2019 - Sep. 2019*
- Created a Python package for researchers to interact with a large vectorized calculation application, streamlining a very tedious workflow.
- Replaced a legacy C# specific data serialization protocol, used by the calculation application's communication protocol, with Protobuf. This allowed for better backward compatibility and cross-language support, meaning smoother upgrades to the communication protocol and enabling applications written in other languages to more seamlessly communicate with the calculation platform.
- Built a Jupyter notebook extension to explore the analytics within the vectorized calculation application for improved research output.
- Redesigned a legacy .NET application, handling millions of requests daily, improving extensibility, scalability, and reliability of the application. Ported over to .NET core for cross-platform compatibility. Packaged as a containerized application and deployed to a Kubernetes cluster.

Netcraft   *Bath, UK*
SOFTWARE ENGINEERING INTERN   *Jul. 2018 - Sep. 2018*
- Expanded Netcraft's product line by working on the development of both an Android application for retail customers and an Android API library for enterprise clients in Java to protect against mobile phishing attacks. It served as Netcraft's entryway into mobile security.
- Engineered solutions to provide mobile phishing protection to customers and provide Netcraft with new sources of data for analysis.

Volunteer & Open Source Experience

Line Numbers for Google Documents · **Open Source Web Extension**   *Since Jun. 2017*
- Developed and maintain a solution to add line numbering to Google Docs documents, and expanded it to solve the needs of specific users, notably in the legal and the education professions. It is used by over 50,000 users weekly and over 100,000 users in the last year.

International Lyon Model United Nations Website   *Since Jun. 2016*
- Built using GatsbyJS with a React front-end and utilizing GraphQL to retrieve the website's content from easily modifiable markdown files.
- Set up a static CMS for the organization's media team to edit the content without any programming knowledge, speeding up and simplifying content deployment — changes are automatically pushed through a CD pipeline which builds the static site and deploys it live to GitHub pages.

Skills

Programming   Java, C#, Python, TypeScript, JavaScript, Rust, C++, Dart, Ruby, Haskell, Solidity, SQL, HTML, CSS, .NET Core
Mobile Development (Android SDK, Flutter), Front-end & Back-end Web Development (React, Vue.js, Node.js, Ruby on Rails)

Languages   English *(fluent)*, French *(fluent)*, Spanish *(fluent)*, Chinese *(basic level)*

Notable Projects

Sprint · **A domain specific language for the blockchain**   *Oct. 2019 - Jan. 2020*
- Developed a domain-specific language for writing financial contracts targeting the Libra blockchain's Move IR with a compiler written in Rust.

Cookoff · **Prize Winning Second Year Project**   *Jun. 2019*
- A cross-platform mobile application (iOS and Android) to entice people to cook more through competition written in Flutter using Dart.
- Utilizes Firebase's realtime database and serverless infrastructure to enable realtime user interactions and providing seamless scalability.

Blocktales · **Finalist at IC Hack**   *Jan. 2019*
- A decentralized platform to write stories together. Computing power is used to mine for the next word. The blockchain stores the story.

Crypto Trading Bot   *Jan. 2017 - Jun. 2017*
- Experimented with technical, quantitative, and machine learning strategies to attempt to develop a profitable trading bot for crypto markets.