

# Samuel Cristobal, Software Engineer

## Contact

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## Summary

In 2019, I co-founded DataBeacon and assumed the role of CTO. Since then, I have been working as a full-stack Software Engineer, writting mostly TypeScript, React, Go and Node.

The company has grown to around ~20 employees, so it is time for me to move on and find new challenges possibly as an IC.

Previously, I worked 7+ years as a Research Engineer, in data mining and network optimization with Python and C. I have a MSc. + BSc. with honours in Mathematics -majored in algebraic geometry and logic- and B.Eng. in Telecommunication systems, best record award 2005.

## Skills

- Programming languages: TypeScript, React, Go, Node, Python, Scala and C.
- Technologies: Next, tRPC, REST, WebSockets, Kafka, Redux, RKT, React Query, SWR, Zod, RxJS, SocketIO, MapboxGL, Turf, Recharts, sass, styled-components, Jest, Testing Library, Webpack, Nodejs, Express, Prisma, Postgres, KafkaJS, NextAuth, Auth0, jwt, gorilla/websocket, kafka-go, go-net/http, azure-go- sdk
- Languages: English and Spanish

## Experience

### Software Engineer

DataBeacon ([www.databeacon.aero](http://www.databeacon.aero)).

From January 2019 until present day.

Responsabilities:

- In charge of building all user-facing applications and backend services.
  - Build single page applications (SPAs) using TypeScript and React-Redux-Nextjs.

- Develop REST APIs and WebSockets back-end services in either Nodejs or Go.
- Contribute to basic CI/CD pipelines using Azure DevOps.
- Help define UX and contributed to the UI design system using Figma and Storybook.
- Responsible for building a team of software engineers, data engineers and data scientists.
  - Establish best practices, workflows, tooling, linting, testing, pipelines and code style.
  - Engineering team management and coordination.
  - Support data engineering and machine learning teams with Python and Scala-Spark on DataBricks.

## Research Engineer

Innaxis R&D ([www.innaxis.org](http://www.innaxis.org)).

From October 2011 until December 2018.

Responsibilities:

- Responsible for data science and artificial intelligence research, solutions and platforms.
  - Write scientific software using Python, C and Matlab-Simulink in the field of network optimization, data mining and knowledge discovery.
  - Deploy, test and profile Machine Learning models on AWS using custom scripts on EC2.
- Became Senior Research Engineer in December 2013 and Technical Director in June 2017.
  - Principal investigator for data science international research projects.
  - Scientific and technical writing, publications and conferences.

## Associate Research Fellow

Universität Wien.

From October 2010 until September 2011.

Field: Algebraic geometry: finding intricate, singular geometries over finite fields with C.

## Assistant Intern

Universidad Autonoma de Madrid.

From October 2009 until September 2010

Field: Mathematical logic: model theory of formal systems with PROLOG.

## Education

- MSc Mathematics and applications. Graduated in 2010. Major: algebra and logic. School: Universidad Autonoma de Madrid.
- BSc with honors in Mathematics. Major: algebra and logic. Graduated in 2009. School: Universidad Complutense de Madrid.
- BEng Telecommunications. Thesis: "Pseudo-random number generators based on discrete, chaotic attractors" with C. Graduated in 2005. School: Universidad Politecnica de Madrid.