

EXPERIENCE

- **Cloudflare** London, United Kingdom
Systems Engineer Oct 2020 - Current
 - TBD: TBD
- **Curve OS** London, United Kingdom
Software Engineer Sep 2018 - Sep 2020
 - **Payments Leader:** During my last months in Curve, I worked on the payments domain as a technical team lead. I was responsible for end to end technical delivery, mentorship and high performance of a small team of backend engineers. During this time, my team successfully contributed to the legacy payments system by introducing new features and worked on critical fixes that led to considerable savings of more than £60.000 a month. I worked very closely to my team and improved the workflow and morale.
 - **Wirecard Gate:** I was one of the key contributors to the weekend integration with a new acquirer due to the Wirecard Gate. The integration was very challenging as most of the legacy payments processing system depended on Wirecard as well as the existing funding cards and processes around them. I was tasked with tokenising the existing funding cards with the new partner, which was essential to make payments work. This has been the most critical situation that Curve has ever lived as Curve depends on such partners to operate payments.
 - **Go Chapter Lead & Gophercon Lead:** I was the Lead of the *Go Chapter*, a bi-weekly meeting that enables go engineers to share ideas, demonstrate and proposing the adoption of new standards. I led *Curve's* sponsorship of *Gophercon UK 2019*, the largest and most important *Golang* conference in UK.
 - **Curve Samsung Pay Card:** Key Contributor to the integration with Samsung Pay to launch the Curve Samsung Pay Card. I proposed and won key stakeholder approval for my scalable and resilient architecture design, built and deployed new services in *Golang* as well as make changes to optimize the existing *Golang* and *PHP* services.
 - **Microservices migration:** I helped the company migrate from 3 monolithic *PHP Symfony* applications to 150 *Golang* microservices deployed on *Kubernetes* using *Istio*, *Ambassador* and technologies like *Jenkins*, *CircleCI*, *MongoDB*, *PostgreSQL*, *RabbitMQ* and *GRPC*. Promoted clean code and testing culture (TDD) by introducing standards to the *Golang* services and writing high quality, well tested and maintainable production code as an example to more junior engineers.
 - **User Onboarding Improvements:** Led the Improvement of customer onboarding and Curve's fraud and compliance system by re-building the legacy process for identifying possible fraudsters and politically exposed people. I Worked on and deployed a new event driven architecture with 0 down time to the production environment. The new system, built in *Golang* and utilizing *RabbitMQ* for resilience, increased the process pass rate from 40% to 60% as well as decreasing false positives. The new services enables faster changes in the future by decoupling from the monolith.
- **Easy Network s.r.l.** Cagliari, Italy
Software Engineer May 2016 - Sep 2018
 - **Merchant Payment Application:** During my time at *Easy Network*, I worked on *MistralPay*, which provides end-to-end processing for merchant payments. As part of the team, I maintained the legacy platform built in *Django* and *PostgreSQL*. As there was a need to speed up development time as well as make the application more resilient, I drove the introduction of cloud solutions. This work consisted of moving the database from on-prem to *AWS RDS*, moving assets to *AWS S3* and deploying the app to an *AWS EC2* instance with a focus on autoscaling.
 - **Rebuilt Customer Onboarding:** I worked on designing, building and deploying a new event driven onboarding using *AWS Cognito* issued *Javascript Web Tokens*, *Go*, *NodeJS* and *Python* microservices deployed onto *AWS Lambda*, with data stored in *DynamoDB*. All the resources were created and deployed using *Terraform* and I even built out a new frontend using *Angular*.
 - **Cumlaude21.it:** *Cumlaude21.it* is a social marketing platform used to manage a entrepreneur's work/social network. As the company was very small at the time, I inherited this project when the main maintainer left. The project consisted of a front-end built using a custom *Javascript* framework and of a *Java Spring Boot* back-end that persisted data in a *PostgreSQL* database. As maintainer, I worked on the introduction of new features, as well as on bug fixing, introducing tests and documentation so other colleagues could assist in future.
 - **Price Tracking Service:** I worked on a platform that tracked *amazon.co.uk* product prices over time. The idea was to suggest user when was the best time to buy an item based on their price being lower than usual. I was the sole maintainer of a front-end built in *AngularJS* and contributed to a *NodeJS* back-end. The data acquired during this project gave me an idea for a side university project, *price probe*.

• Xorovo s.r.l.

Sestu, Italy

• Internship

Mar 2015 - Jun 2015

- **University News App:** During my internship, I built a app for my university news feed. As this was my very first working experience, I was taught the basics of software development and web applications. The app was built using *Apache Cordova*, *AngularJS*, *HTML*, *CSS3* and *Bootstrap*. The news feed was populated with news in *JSON* format fetched from a *Apache2* web server. In order to render these news, I implemented a logic layer in the app to call the web server using *HTTP* calls and used the *MVC* pattern to show the results.

EDUCATION

• Università degli Studi di Cagliari

Cagliari, Italy

• *Master of Science in Computer Science: 110/110 (1st Class)*

Oct 2015 - Feb 2018

• Università degli Studi di Cagliari

Cagliari, Italy

• *Bachelor of Science in Computer Science*

Oct. 2012 - Jul. 2015

PROJECTS & TALKS

- **Price Probe:** During my MSc, I worked on price probe, a project used to predict *amazon.co.uk* prices based on their price history and other external factors like a product manufacturer's popularity and customer reviews over time. The idea was to understand if *amazon.co.uk* prices were influenced by external factors and not only by the market. I built a series of web crawlers using *Golang* and *Python* to collect the data. After crawling and data post-processing, I focused on forecasting the prices for each product. I built a *Machine Learning* model using *Python*, *Pandas* library and *Apache Spark*. For each product, I made a prediction using the basic time series and trying all the different combinations like (*price*, *date*, *popularity*). The results were impressive. I discovered that the manufacturer's popularity influenced price trends and was able to predict a product's price for the next several days. The results and the study can be viewed in the paper *Forecasting E-Commerce Products Prices by Combining an Autoregressive Integrated Moving Average (ARIMA) Model and Google Trends Data* that was published on Future Internet. The source code is available on my github.
- **Go Microservices at Curve Talk:** On July 2019, I gave a talk about *Go microservices*, their project structure and testing best practices adopted at *Curve*. I gave the talk in Cagliari, the city where I grew up, during a *Go meetup*, a local *Golang* group that I found inspired by the UK one. The talk is available on my github.

PROGRAMMING SKILLS & INTERESTS

- **Languages:** Go, PHP, Javascript, Typescript, Java and Python.
- **Technologies:** AWS, Angular, Redux, PostgreSQL, MongoDB, Datadog, Docker, Kubernetes and RabbitMQ.
- **Interests:** Distributed Systems, TDD, Clean Code practices, Event Driven Architectures, Algorithms and Data Structures.