

# Filip Kwiatkowski



Webpage: [filip.infobot.pl](http://filip.infobot.pl)

E-mail: [filip.kwiatkowski@gmail.com](mailto:filip.kwiatkowski@gmail.com)

## Profile

Python enthusiast and developer with experience in many other languages. Interests: serverless architectures, natural language analysis, spell correction, chatbots, voice assistants, automation of everyday tasks. Free time projects: [Infobot.pl](http://infobot.pl), [Infobot voice assistant](#), [password.garden](http://password.garden) and [haslomat.pl](http://haslomat.pl).

## Experience

### TCL RESEARCH EUROPE – 2021/01 - CURRENTLY

- Various cloud projects (AWS, Aliyun, mainly serverless), eg. IP camera platform (streaming, storage, playback)
- Technologies: Python, Typescript, React, Bash, WebRTC/Coturn, AWS (CloudFormation, Lambda, EC2, S3, DynamoDB, CDK, MediaTailor, MediaConvert), Aliyun (ECS, ESS, KMS, OSS, OTS, RDS, Ros CDK), audio/video transcoding (ffmpeg), GitLab CI/CD, Cypress, Behave, Locust, ChatGPT, Copilot

### SAMSUNG R&D POLAND – 2013/04 - 2020/12

- Various AI and NLP projects, eg. reply suggestions for Gear smartwatches, predictive keyboard, recommendations of TV shows and movies based on Twitter trends, emoji prediction for keyboard, platform for linguistic annotations, Android apps for audio and video recording.
- Technologies: crawling, text mining, language models, Python, C++, Java, React Native, Expo, Android, Docker, Kubernetes, Helm, TensorFlow, MongoDB, Spark, Kafka, Thrift, regular expressions, protobuf, selenium, Locust, monit, zabbix, Sentry, AWS (EC2, IAM, S3, Route53, CloudFront), Let's Encrypt

### PASSWORD.GARDEN AND HASLOMAT.PL – 2019/12 - CURRENTLY

- Dictionary based [password generator](#) for 29 languages built on word frequency lists from OpenSubtitles project. Additional version ([haslomat.pl](http://haslomat.pl)) focused on Polish language.
- Technologies: Python, JS, Gulp, Bootstrap, Google Cloud

### INFOBOT.PL – 2019/01 - CURRENTLY

- Personal project aimed to relaunch informative chatbot [Infobot](#) on [Google Assistant](#), [Facebook Messenger](#), [Telegram](#) and [Twitter](#) after regaining ownership of Infobot.pl domain.

- Technologies: Python, DialogFlow, serverless approach (Google Cloud Functions, Actions on Google, Firestore, Firebase, Pub/Sub message queue, Scheduler, Stackdriver; various cold start optimizations), Bootstrap, DarkSky, OpenWeather

#### **INFOBOT VOICE ASSISTANT – 2017/09 - CURRENTLY**

- Personal project aimed to create my own voice assistant for Polish language. Hardware based on Raspberry Pi platform, software architecture based on Python microservices, Snowboy library for hotword detection and Google APIs for voice recognition/generation. Custom solution for natural language understanding and generation. Recently added screen for alternative visual interface. Demo: [youtu.be/HnNL7EVW-WI](https://youtu.be/HnNL7EVW-WI)
- Technologies: Raspberry Pi, Python, microservices, Docker, Google Cloud APIs

#### **YOSH.AI – 2018/03 - 2018/12**

- Development of chatbots helping users to find fashion products using Dialogflow and TypeScript webhooks
- Technologies: Python, TypeScript, DialogFlow, Facebook Messenger API, Google Assistant, Firebase

#### **SZOPI.PL – 2016/04 - 2017/01**

- Development of chatbot for Facebook Messenger (ordering groceries through Messenger). Demo: [youtu.be/cTba\\_EMWFgY](https://youtu.be/cTba_EMWFgY)
- Technologies: Python, Facebook Messenger API, AWS

#### **4SYNC SOLUTIONS – 2013/01 - 2013/03**

- Developing new features for surfsafe.pl platform (ISP and home solution for filtering chosen categories of web pages), eg. adblock-like system.
- Technologies: Python, C

#### **GG NETWORK (GADU-GADU) – 2008/10 - 2012/12**

- Further development of Infobot.pl project and expanding its functionalities by natural language processing. Demo: [youtu.be/S1KZknERN6g](https://youtu.be/S1KZknERN6g)
- Redesign and implementation of next version of Botmaster - highly efficient platform which maintains thousands of instant messaging bots,
- Developing instant messaging bots on for various clients, eg. Disney
- Being responsible for bot in technical part of Polish Internet Spelling Contest 2009 and 2012,
- Technologies: C/C++, Qt, Bash, PHP, MySQL, PostgreSQL, memcache, Redis, protobuf, valgrind

#### **INFOBOT.PL - 2004/09 - 2008/10**

- Internet startup project created with Maciej Szewczyk. Developed informative instant messaging bot with built in dictionaries, weather forecast, tv programme and many other functionalities for popular IM networks (GG, Skype, Jabber, Tlen),
- Additional youtube.infobot.pl service in which user could add and watch music video with embedded lyrics,
- Raising userbase to 5 million users and acquisition by Gadu-Gadu company in 2008,
- Technologies: C, Bash, PHP, Linux/Gentoo, sendmail, jabberd, MySQL, SQLite, BerkeleyDB

## Education

- Maria Curie-Skłodowska University, Lublin, Poland, Faculty of Mathematics, Physics and Computer Science - MSc, 2008. Master's thesis: "Automatic error correction in written text" - very good mark. Program presentation: [youtu.be/WkD4T0J7iG8](https://youtu.be/WkD4T0J7iG8)

## Publications

- "Infobot - DIY Voice Assistant" - presentation about the project, Warsaw Google Campus, April 2018
- Article "Gadu-Gadu bot in Google Cloud" in "Programista" magazine (ISSN 2084-9400), September 2012
- "Meeting with Gadu-Gadu" - Presentation about Infobot and Gadu-Gadu for students of Maria Curie-Skłodowska University in Lublin, Poland, December 2011

## Additional activities and courses

- Good coding practice in Python (November 2017)
- Java Good Practices and Design Patterns (November 2017)
- Winter School on Big Data - BigDat 2015 conference, Tarragona, Spain (January 2015)
- Learning From Data (introductory Machine Learning course), edX (Fall 2013)
- Introduction to Computer Science and Programming, edX (Spring 2013)
- Foundations of Computer Graphics, edX (Fall 2012)
- 19th place on Microsoft Speller Challenge (June 2011)
- Nokia Qt Programming Course (November 2010)
- Membership and participating in The Scientific Circle of Computer Science on Maria Curie-Skłodowska University (2003 - 2008)

## Languages

- Polish - native
- English - fluent
- Czech - basic
- French - basic

## Other interests

- Bike riding, bikepacking, mountains, photography, DIY projects, retro computers