

Ariel BITON

FULL-STACK DEVELOPER

Birth: 28.06.1979 in Paris (France)
Address: Paris (France)
Email: biton.ariel@gmail.com
Github: <http://github.com/ariel-zplinux>
Malt: <https://www.malt.fr/profile/arielbiton>
Linkedin: <https://linkedin.com/in/ariel-biton-59aa101>

TECHNICAL SKILLS

OS	Linux Slackware/ Debian (+Ubuntu)/ RHEL
Languages	C , Assembly (x86), Java, Ruby (Ruby on Rails), Python , Php Javascript Es15 / Typescript - NodeJs , Express , NestJs , Loopback, Objection, Knex, TypeORM, Prisma - React , Ionic , Capacitor , Socket.io , Redux , RxJs , Axios , Jest , Mocha Html5 , Css3 , Xslt, Xml, JSON
Dev/Sys Tools	Emacs, Visual Studio Code , Firefox Developer, Chromium, Postman, Screencastify, Yaak Git , Svn, Cvs, Make, Npm , Gulp, Webpack, Vite , Babel, Bower, Grunt Lxc , Docker , Docker compose , VirtualBox, Qemu/Kvm Screen, Tmux , Openssh , Netcat, Nmap, Telnet, Cron
Databases	MongoDB (Robo3T), Mysql/MariaDB, Postgresql , Sqlite

EDUCATION

2023-now	- Elements of AI (MinnaLearn – University of Helsinki) https://certificates.mooc.fi/validate/ks26t11vhvb - Les fondamentaux des intelligences artificielles génératives (Unow) https://api.unow.fr/certificate/518224587048352312 - GraphQL Developer (Apollo GraphQL Associate) https://www.apollographql.com/tutorials/certifications/13cc1ffd-1903-4ad0-bc76-056c9a76ecd1 - Sécurité informatique (ANSSI / SecNum Académie) https://drive.google.com/file/d/1K2jnp3QWSaa2oKa9Am23EoF73NOWVfav/view - Getting started with OpenTofu (Terraform) (Linux Foundation) https://ti-user-certificates.s3.amazonaws.com/e0df7fbf-a057-42af-8a1f-590912be5460/11b66550-e557-4d00-b3c5-fcd1667f09f6-ariel-biton-34c79e1d-63ba-4532-ae10-af2c02439185-certificate.pdf
1999/2004	M.Sc. in Computer Science at Sorbonne Université (Paris)

LANGUAGES

French (native language) ,**English (fluent)** , **Hebrew (fluent)** , **Spanish (notions)**

WORK EXPERIENCE

2025 July	LEGAL PLACE (Paris – France) (freelance)
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French company providing legal and accounting services around company creation and management.

Role: Fullstack Developer (**NodeJs / Directus / ReactJs / NextJs**)

Keywords: NodeJs, Directus, ReactJs, NextJs, Postgresql, Typescript, Docker, Docker Compose, Docker Desktop, Terraform, Postman, Git, Figma, Mac OS

Mainly frontend tasks, including integration of an AI based chatbot agent (Intercom)

- backend Headless CMS **Directus** with custom logic in extensions
- frontend **NextJs** 15 using server actions to communicate with backend
- using **Postgresql** database

2025

February -
March

BKW ENERGIE FRANCE (La Defense – France) (freelance)

French electric utility company belonging to a Swiss company (BKW)

Role: Backend Developer (**NodeJs / NestJs**)

Keywords: NodeJs, Express, NestJs, MongoDB, TypeORM, Zod, RxJs, Axios, Swagger, Typescript, Docker, Docker Compose, Git

Redesign POC of legacy platform based on Typescript NestJs backend and NextJs frontend

- backend from scratch based on **NestJs** above Node and ExpressJs
- using **MongoDb** database, **TypeORM** ORM and **Zod** validator
- documentation and entities / DTO shared through **Swagger (OpenAPI)**
- state of art http client using **Axios** and **RxJs Observable**
- using Yaak API client for API testing
- basic auth using JWT token with hardcoded user (POC)

2023-now

ZPLINUX (Paris - France) (personal open source project)

ZP Note is a WIP note taking hybrid open source app.

It's currently being migrated from Capacitor native mobile app to a **PWA**.

Role: Architect / Fullstack Developer (**NodeJs/React/Ionic**)

Keywords: NodeJs, Express, React, Vite, Ionic, PWA, Capacitor, Postgresql, Prisma, Typescript, GraphQL, Apollo stack, Docker, Docker Compose, Keycloak, Caddy, Express session, Git, Gitea, Redmine

Based on **Ionic** to provide a mobile / web app user experiences and **Electron** to provide a desktop user experience (TODO later).

It's architected in backend (**Node/Express/Prisma**), frontend (**React/Vite/Ionic**), db (**Postgresql**), auth (**Keycloak**), cache (**Redis**) and reverse proxy (**Caddy**) containers (**Docker**) orchestrated by **Docker Compose**.

Communication between frontend and backend is performed with **GraphQL** (using **Apollo stack**).

Provisionning of **Keycloak** and **Postgresql** are automated and performed in containers build

stage.

Actual goal of this project is to have a boilerplate ready to develop modern mobile/web/desktop application and to train myself on new technologies.

2020-2022

SHARECARE (<https://www.sharecare.fr>) (Paris - France) (freelance)

Sharecare is a health and wellness company that provides consumers with personalized information, programs and resources to improve their health.

Role: Backend Lead Developer (**NodeJs/React**)

Keywords: NodeJs, Express, React, Postgresql, Objection, Knex, Typescript, Docker, Git, Mocha, Chai, Jira, Azure Ad B2c, Azure App service, Azure Function, Azure Cosmos db, Casbin, Winston, Morgan, Express session, Node cron

Tasks:

- Backend created from scratch above Express (in a component based architecture)
- Authentication based on Azure Ad B2c cloud-based identity and access management (IAM) solution
 - (using user flows and SPA, frontend with msal.js, backend with passport)
- Authorization based on Casbin open source package
- Database Postgresql managed by Objection ORM and Knex query builder
- Hosting in Azure App Service
- Swagger API doc
- End to end testing based on Mocha, Chai and Chai Http
- Backend optimizations (caching, tasks in background, session, scheduler, ...)
- Connectors to Azure Function MTs, MS Graph API, Azure blob storage, AWS S3 and Customer IO.
- Logging based on Winston/Morgan, exported to Azure App Insights with alerts set

2019-2020

November -

April

YEM / ENGIE (<https://yem-energy.com>) (Paris - France) (freelance)

YEM is a European digital marketplace for BtoB energy supply, YEM offers powerful tools and tips to lower the gas and power bills of your business across Europe.

Role: Fullstack developer (**NodeJs/React**)

Keywords: NodeJs, ExpressJs, MongoDB, Sharding, Mongoose, React, Redux, Redux Saga, Ant Design, Docker, Git, Jest, Jira, Aws S3/Glacier/Sns, Heroku

Task: Creation of new version of YEM product with as main new feature, predictive suggestions of optimizations based on market trends and chosen strategy (LR, MR, HR).

Frontend (from scratch):

- Stack: React (CRA), React router, React Intl, Redux, Redux Saga, Ant design
- HTML/CSS integration of 15 pages mock-up with Ant Design (desktop version)
- Delivered from AWS (S3 and Cloudfront)
- Set up multilingual content (italian/english) with React Intl

Backend

- stack: Node (v10), Express, Jest, MongoDB (hosted in Atlas), Mongoose, AWS (S3, SNS), Better queue, node-cron, Winston, Postman, Robo3t
- Set up backend hosting with Heroku

- Set up MongoDB transaction (with replica set) and update base code
- Set up MongoDB databases automatic backup with Cron, Docker and AWS S3 Glacier
- Set up MongoDB Sharding
- Handle cloud storage with Aws S3 (library and update base code)
- Handle SMS notifications with Aws SNS
- Set up scheduler (with node-cron)
- Handle access concurrency with queues (using Better queue) on RUN (predictions) and Notifications management
- Set up basic caching (in Node, with cache invalidation)
- APIs REST routes and models for backend services related to new features
- Unit and end to end tests with Jest

2019 May - August **FONCIA STARK** (<https://fr.foncia.com>) (Paris - France) (freelance)

Foncia is a real estate company.

Role: Fullstack developer (**NodeJs/React**)

Keywords: NodeJs, ExpressJs, React, MongoDb, Mongoose, Docker, Docker compose, GitlabCI, Git, Pull Request, Sftp, Mocha, Sinon, Chai, Jira, Scrum

Technical Stack:

- Backend: NodeJs (Express)
- Frontend: React
- Database: MongoDb (Mongoose)

Tasks

- addition of End to end tests (using Mocha/Sinon/Chai)
- integration of SFTP server container to CI (using GitlabCI / Docker / Docker compose)
- Backend/Frontend tasks around ACK response from Docapost and CAF AL monthly report

2019 May **MINDO** (<https://mindo.app>) (Nanterre - France) (freelance - 2 days mission)

Mindo is a SaaS platform that allows you to take any kind of notes freely or as part of an easy-to-build process, backed up by an after-seizure service that provides any data processing on demand from the user.

Role: Backend developer (**NodeJs/Loopback**)

Keywords: NodeJs, Pm2, ExpressJs, Loopback, Mysql, Git

Tasks:

- Optimisation (> X 100) of route/requests called in landing page of a mobile application.
- NodeJs clustering with **Pm2**
- Loopback models refactoring

2018 **ABILY CARE / SMARTFLAT / ENGIE** (<https://www.abilycare.com/>) (Paris - France) (freelance)

SMARTFLAT is a “System to help to accurately measure the dynamism and well-being of elderly people”, it's developed by INEO Digital (ENGIE).

Role: Backend developer (**NodeJs/Loopback**)

Keywords: NodeJs, ExpressJs, Loopback, Keycloak, Angular, Docker, Docker-compose, Debian, Jenkins, Python, JWT, API REST, API SOAP, Javascript ES8, Typescript, Postgresql, Pgadmin, Git,

Gitlab, Jira, Postman, Curl, Nginx, Scheduler, Node-cron, Micro Service Architecture (MSA)

Technical stack:

Smartflat is designed in a Micro Services Architecture (MSA), with help of Docker containers and Docker-compose orchestrator.

- Backend based on Loopback (from IBM) on top of NodeJs/ExpressJs (Javascript), Loopback adds a data access layer (DAL) abstraction in front of data sources.
- Frontend based on Angular (TypeScript).
- Analysis scripts developed in Python.
- Database based on Postgresql.
- Reverse proxy based on Nginx.
- Authentication managed by Keycloak (from Redhat/IBM).

All tools here are open source products.

Tasks:

- Allow several walk/static/acquisition tests and analysis to be launched in parallel.
- Allow multi-establishment management (use of Json Web Token (JWT) in output of Keycloak, use of hooks in Loopback models to filter)
- Design and development of new acquisition project.
 - Securely handle certificates and credentials
 - Integrate new industry-ready box/sensors system (Zwave/Eocean sensors)
 - Actual data acquisition externalized to SaaS solution and securely retrieved by API call (in SOAP)
 - Designed in micro-service architecture with separation between acquisition and analysis services (= containers)
 - API/models design and implementation with Loopback/Postgresql (API REST)
 - Scheduler based on Node-cron with dedicated Task model.
- Pair programming with Frontend developer for custom API call, optimization/refactoring of Frontend critical part

2017

LINAGORA (<http://www.linagora.com>) (Paris – France)

Linagora is an Open Source Software Company

Role: Fullstack Developer (MEAN stack)

Keywords: Open source, NodeJs, Express, Javascript ES6, AngularJs, MongoDB, ElasticSearch, Socket.io, RabbitMQ, Gitlab, Git, Karma, Mocha, Sinon, Chai, Mockery, Docker, Docker-compose, Angular Material, Scrum, Agile

- Contributor on **OpenPaaS** project (<http://open-paas.org/> - <https://github.com/linagora/openpaas-esn>)
- **Scrum** methodology (Sprint planning, Sprint demo, Sprint review, Daily meeting)
- **CI / CD** based on **Gitlab-CI**
- Code base managed by Git, and merged by **Pull Request**
- **TDD** based on **Karma, Mocha, Sinon, Chai et Mockery**
- Use of **ElasticSearch** as search engine
- Migration of Angular Strap component to **Angular Material (Material Design)**
- Development on modules esn (core), calendar, inbox and resource
- Member of team **Calendar**, module using **Sabre** as calendar backend, **RabbitMq** (to connect our backend to Sabre) and **FullCalendar.js** as calendar frontend

My code can be seen here <https://ci.linagora.com/users/abiton/> or in their github repositories

(from author with mail abiton@linagora.com)

2009-now

ZP (my company) – Personal projects / Freelance

2015 – now: ZP Media player (<http://player.zplinux.com>) (personal project - Tel Aviv – Israel)

Zp is a web application designed to play remote media content.

The target behind is to provide a personal cloud solution (hardware + os + software)

Role: Founder / Fullstack Developer (Meteor)

Keywords: Meteor, MongoDB, GridFs, Html5, Blaze, Scrum, Lxc, Git, Redmine

- Use of **Meteor** platform (built around **NodeJs/MongoDB**)
 - Use of **HTML5** audio/video player
 - Backoffice using **Orion** package
 - **TDD and BDD** (Jasmine, Cucumber)
 - Use of **Git** (Gogs), **Redmine** (project management web app written in Rails)
 - **Agile** as much as possible (**Scrum** sprints)
 - Extensible, Offline ready by design
 - Designed to run in a **Lxc** container
 - Management of free space per account and on filesystem (quota)
 - Upload to db storage (**gridfs/mongo**)
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2016 - Simple Calculator (<https://github.com/ariel-zplinux/simple-calculator>) (open source project - France)

Calculator – Training to Node/React and Responsive Design

Role: Fullstack Developer (Node / Hapi / React stack)

Keywords: Open source, NodeJs, Hapi, React, Responsive Design, Docker

- User experience adapted to mobile and desktop (**Flexbox**)
 - Use of **Hapi** (API framework above Node) and **Create-React-App** (Facebook React starter)
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2016 - Simple Chat (<http://chat.zplinux.com>) (open source project - Israel)

Basic chat application – MERN training

Role: Fullstack Developer (MERN stack)

Keywords: Open source, NodeJs, Express, React, Flux, Socket.io, MongoDB, Server Side Rendering

- Source at <https://github.com/ariel-zplinux/simple-chat>
 - Back-end using **NodeJs**, Front-end using **React** and **React Router**
 - State managed by **Flux**, Synchronization by **Socket.io**
 - Data persistence by **MongoDb**, Operation performed through **API** calls
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2016 - BLONK (<http://blonk.co/>) (Paris – France) (freelance)

Blonk is a recruitment application originally from USA, now targeted at Singapore.

Role: Fullstack Developer (Meteor)

Keywords: Meteor, MongoDB, Cordova, Git, Trello

- Integration of new features (**signup** strategy, richer **profile**, new **matching** module) to an existing **Meteor** application.

- Work on mobile part (**Cordova**)
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2009 – now: ZPLINUX OPERATING SYSTEM (<http://www.zplinux.com>) (Rishon Letsion - Israel)
Operating System Design and Development.

Role: Architect / Developer (freelance / independent)

Keywords: Linux, Ubuntu, Live system, Kde, Customized distribution, Remote control integration, J2me mobile, Wiimote

- **Linux** Operating System based on **Ubuntu** and **KDE** desktop.
- Management of Bluetooth remote devices (**J2ME** mobile and Nintendo **WiiMote**).
- Management “**on the fly**” of graphic acceleration for Nvidia graphics cards in live.
- Usable in **live**, easily **installable** and **upgradeable**.

2012-2014 **CREOPOLIS** (<http://www.showberry.com>) (Ramat Gan – Israel / Paris - France)

Creopolis develop **Showberry**, an **e-ticket selling platform** for concerts.

Currently used in www.israstage.com and www.datishow.com

Role: Fullstack Developer (Ruby)

Keywords: Ruby, Rails, Mysql, Git, Scrum, Redmine

- Development in **Ruby on Rails (2.3)** framework
- Use of **Scrum (Agile** methodology)
- International team work (between 2 devs in Israel and 1 in France)
- Project using **Git** as distributed revision control and source code management
- Full mapping of **Ticketnet** (<http://www.ticketmaster.fr/>) data model to Showberry data model
- Development and debug of an advanced import engine (with extensive use of lambda programing)
- Efficient and coherent import of Ticketnet events with time constraint (new data received on a daily basis, and needed to be imported under 6 hours)
- Integration to Showberry of **Paybox** (payment solution <http://www1.paybox.com>) and **Ticketnet** (remote order/event management for their events) through their API
- Installation and configuration of our local virtualization server (Debian 6 with **Xen**)
- Installation and configuration of our **NAS** (open media vault (<http://www.openmediavault.org/>) in xen vm), and **NMS** (open nms (<http://www.opennms.org>) in xen vm)

2011-2012 **FTSOFT** (start-up - Israel) (**freelance**)

Ftsoft **would have** provided bleeding edge open source **fault tolerance** solution based on **qemu/kvm** virtualization.

Role: POC Developer/Integrator

Keywords: POC, Fault tolerance, C, Qemu, Kvm, Php, Javascript, Ajax

- **Integration** and little development/tweaking in **C** of a japanese fault tolerance solution above **qemu/kvm**
- Development of a backoffice in Php, Javascript (Ajax) for the Proof Of Concept stage.

2011-2012 **MAAGAR MEIDA** (<http://www.1.co.il>) (Jerusalem - Israel)

Maagar Meida is Real Estate website scraping apartments from other websites

	<p><u>Role:</u> Backend Developer / Architect / System Administrator (half time remote work)</p> <p><u>Keywords:</u> Devop, Sys admin, Python, Bash, Xslt, Voip, Asterisk, Centos, Debian, Sed, Awk, Captcha resolution</p> <ul style="list-style-type: none"> • Installation, configuration and administration of the office virtualization server (Debian, virtualbox virtualization, software raid 5) • Bleeding edge web scrapping using Homemade downloader with captcha resolving using external web service XSLT templates (new) and sed / awk regular expressions (legacy) • Automatic robot (scheduler) in Python • Internal back-office to launch tasks and view status in Php / Javascript (Ajax) • Advanced Internet Connection Manager (automatic clean IP renewal through a gateway using a 3G modem) • Asterisk installation (Centos 5 / Asterisk 1.8) and basic voip development (IVR, ...)
2009-2010	<p>VOICESPIN (http://www.voicespin.com) (Givatayim - Israel)</p> <p>Voicespin provides solutions around Asterisk open source VOIP platform.</p> <p><u>Role:</u> VOIP Developer / Support</p> <p><u>Keywords:</u> Voip, Asterisk, Centos, Python, Perl, Bash, SIP</p> <ul style="list-style-type: none"> • Development in Python (ie: retrieving Snom IP phone data through script web-scraping phone's web interface with use of Mechanize library, ...). • Installation and support around VOIP products (based on Asterisk and Centos Linux)
2008	<p>CORVIR (http://www.corvir.com) (Petah Tikva - Israel)</p> <p>IT Solution Experts (around IBM Tivoli products).</p> <p><u>Role:</u> Developer / Integrator (Java)</p> <p><u>Keywords:</u> Java, RHEL, Tivoli suite, Integration</p> <ul style="list-style-type: none"> • Development of an installer in Java for a product (Eurekify) related to ITIM • Customization in Jsp of forms to integrate an external product (Eurekify) to ITIM. <p>ISBANK (through Corvir and IBM Turkey) (http://www.isbank.com.tr) (Istanbul - Turkey)</p> <p>Turkish bank with 20 000 employees and 20 000 000 clients.</p> <p><u>Role:</u> Developer / Integrator (Java)</p> <p><u>Keywords:</u> Java, Redhat Enterprise (RHEL), Aix, IBM Tivoli suite, Integration, LDAP, Javascript</p> <ul style="list-style-type: none"> • Migration of their internal authentication and authorization systems. • Deployment of IBM Tivoli suite (ITIM, TAM OS, TAM for E-Business) on AIX. • Development in Java with ITIM API (import of data from a remote source). • Integration of their LDAP and database servers through connectors developed with ITDI (Ibm Tivoli Directory Integrator) in Javascript
2006/2007	<p>WEBCOLLAGE (http://www.webcollage.com) (Tel Aviv - Israel)</p> <p>Syndication services for product content from vendor to retailers' websites.</p> <p><u>Role:</u> Showcase Developer</p>

2004

Keywords: Html, Xslt, Xpath, Javascript

- Development of website transformations code for syndication, using high level of **Javascript** on **Java** and **Xslt** templates (Xpath) technology.

LIP6 (<http://www.lip6.fr>) (Paris - France)

Role: **Researcher in processor architecture (MSc** thesis)

Keywords: Out of order architecture, Mips R3000, Instructions dependencies

- Study and modeling of the architecture of an **out of order** processor compatible with the **MIPS R3000**.
- An out of order architecture enables to execute many instructions at the same time, not necessary in the original program order, as soon as they are ready to be executed.
- Main issues to resolve were about **flow dependencies** (Read After Write – RAW), **output dependencies** (WAW), **anti dependencies** (WAR) and **control dependencies** on instructions' operands.

2001

INRETS (<http://www.inrets.fr>) (Paris - France)

Role: **Embedded System developer (C) (BSc** (DUT GEII) stage + summer job)

Keywords: C, Assembly, Embedded System, Telemeter, Modula 2

- Development (in **C** and **Assembly**), and implantation of an electronic device (**telemeter**) in a **car simulator cabin**, through a microcontroller (**NEC V853**).
- Development and integration in the **car simulator software** of a **joystick manager** module in **Modula 2** (programming language similar to **Pascal**)