Illia L.
Senior Software Engineer

SUMMARY

• 6+ years of experience in reverse engineering and security analysis of iOS and Android applications, including authentication, password reset, OTP, and account recovery flows;
• Experience with static and dynamic analysis using Frida, JADX, IDA/Ghidra, Hopper, Burp Suite, and mitmproxy, including hooking runtime behavior, traffic interception, and analysis of obfuscated code paths;
• Understanding of network protocols, API behavior, session handling, token flow inspection, and secure communication patterns in mobile systems;
• Skilled in bypassing anti-debugging protections, inspecting native components, and analyzing undocumented logic in React Native, Swift, Kotlin, and mixed-architecture apps;
• Experienced of mapping complex authentication workflows, documenting mobile security mechanisms, producing technical reports, diagrams, and vulnerability-focused flow descriptions;
• Experience optimizing backend/mobile integrated flows with PostgreSQL, caching, throttling, and performance tuning in high-load financial and administrative mobile apps;
• Skilled in mobile application security analysis across fintech, art commerce, and critical operations platforms, including real-time traffic inspection and security hardening;
• Effective communicator with experience collaborating with product, operator, and engineering teams through RFCs, status updates, and structured documentation.

TECHNICAL SKILLS

Main Technical Skills	Reverse Engineering, React Native, Android APIs, iOS
Programming Languages	CoffeeScript, JavaScript, Kotlin, PHP, Python, Swift, TypeScript
Android Libraries and Tools	Android APIs, Jadx, Kotlin
Mobile Frameworks and Libraries	Capacitor, Ionic
UI Frameworks, Libraries, and Browsers	CSS, CSS Grid, jQuery, jQuery UI, Material UI, SCSS, Tailwind CSS, UI
JavaScript Frameworks	Ext JS, GatsbyJS, jQuery, Lodash, NestJS, Next.js, Node.js, React, Vue.js

JavaScript Libraries and Tools	Gulp.js, Gulp-Less, Immutable.js, Joi, Multer, Nightwatch.js, React Context, React Hooks, React Native, React Query, React Router, Redux, Redux-Saga, Redux-toolkit, RTK-query, RTK Query, Vite, Vue Router, Vuex, Webpack
PHP Frameworks	Yii
Security	Burp Suite, RBAC
Databases & Management Systems / ORM	PostgreSQL, Prisma, Redis, Supabase
Amazon Web Services	AWS SAM, AWS Security Groups
Azure Cloud Services	Azure Key Vault
Industry Domain Experience	seo
Methodologies, Paradigms and Patterns	Agile, Flows, REST, Scrum, SOAP
Platforms	Android, IOT, Mobile App
SDK / API and Integrations	Android APIs, API, Eslint LinkedIn API, Google Maps API, GraphQL, RESTful API
QA, Test Automation, Security	Authentication, Burp Suite, Frida, Ghidra, Jasmine, Jest, OTP, Reverse Engineering, Unit Testing
Deployment, CI/CD & Administration	Axios, CI/CD, Jenkins
Version Control	BitBucket, Git, Github Actions
Virtualization, Containers and Orchestration	Docker, Docker Compose
UI/UX/Wireframing	Figma, UI/UX, UX
Tools for Big Data	Hopper
Operating Systems	iOS
Mail / Network Protocols / Data transfer	mitmproxy, WebSockets
Web/App Servers, Middleware	Nginx
Third Party Tools / IDEs / SDK / Services	Parcel

Other Technical Skills	Unreal Engine

WORK EXPERIENCE

Software Developer, Mobile Banking Application Security

Duration: 2024 June - Present

Summary: Reverse engineered and analyzed iOS/Android banking applications focused on payout automation and financial transaction processing, inspecting authentication, password reset, and account recovery flows.

Responsibilities:

- Reverse engineered APK/IPA files using JADX, IDA/Ghidra, Hopper;
- Employed Frida for dynamic analysis to hook into mobile app runtimes, bypassing anti-debugging mechanisms and inspecting OTP flows;
- Intercepted API calls and network traffic with Burp Suite and mitmproxy;
- Mapped password reset and account recovery pathways in native iOS/Android components;
- Optimized PostgreSQL queries and added caching for sub-second responses in mobile-integrated services;
- Hardened security implementations with Vault for secrets management, strict RBAC, and auditable trails;
- Integrated SOAP and REST providers for financial data exchange;
- Profiled and tuned mobile app performance for burst traffic, implementing pagination and throttling;
- Collaborated with operators and product teams via RFCs and status updates;
- Produced technical reports and flow diagrams detailing authentication mechanisms.

Technologies: React Native, Next.js, React, TypeScript, React Query, Redux Toolkit, Axios, Tailwind CSS, WebSockets, Vite, Jest, Node.js (Express/partial Nest.js), PostgreSQL, Prisma, Redis, SOAP, Joi, Multer, Docker, Git, Vault, Frida, Burp Suite, mitmproxy.

Software Developer, Art Commerce Administrative Application

Duration: October 2023 - June 2024

Summary: Cross-platform mobile administrative application for art traders. Included reverse engineering, authentication flow analysis, UI/UX optimization, and secure data handling.

Responsibilities:

- Reverse engineered React Native components using Frida;
- Performed static analysis (JADX, Ghidra) and documented recovery/password flows;
- Intercepted network traffic (Burp, mitmproxy) for secure moderation processes;
- Bypassed obfuscation in native binaries with Hopper;
- Delivered React Native endpoints with optimistic updates and WebSockets;
- Created PostgreSQL schemas with permission boundaries;

- Implemented caching, pagination, and CI pipelines for stable deployments.

Technologies: TypeScript, JavaScript, Swift, Kotlin, React Native, Next.js, React, TypeScript, React Query, Axios, Tailwind CSS, WebSockets, Jest, Vite, Vue, Vuex, Capacitor, Ionic, Docker, Git, GitHub Actions, ESLint, Docker Compose, Lens, Frida, JADX, IDA/Ghidra, Hopper, RESTful APIs, Redis.

Software Developer, DataArt Solutions, Inc.

Duration: April 2021 – October 2023

Software Developer, Critical Alerts Management Platform

Summary: Development of web and mobile applications for critical alert management.

Responsibilities:

- Developed and maintained web and mobile apps using React.js and React Native;
- Followed best practices in frontend/mobile architecture;
- Built reusable components and utility libraries;
- Implemented APIs/web services;
- Participated in code reviews and client communication.

Technologies: JavaScript, TypeScript, React, React Native, Redux, React hooks, React Router, React Context API, Redux Toolkit, RTK Query, Material UI, Webpack, Jest, Next.js, Git, Lens, Docker.

Software Developer, Gaming Tournament Organizer

Summary: Real-time gaming tournament management web application built with Vue 3.

Responsibilities:

- Translated wireframes into UI;
- Built Vue.js components and pages;
- Implemented Vuex for state management;
- Added WebSockets for live updates;
- Optimized frontend performance.

Technologies: TypeScript, Vue 3, Vuex, Vue Router, Vite, WebSockets, Tailwind CSS, Jest, Git, Docker.

Software Developer, IoT Platform for Vehicle Tracking

Summary: Distributed platform for real-time vehicle tracking.

Responsibilities:

- Created new application components;
- Built UI components;
- Provided unit tests;
- Troubleshot server issues;
- Mentored juniors and reviewed code.

Technologies: JavaScript, TypeScript, React, Redux, Next.js, SCSS, Nightwatch.js, Git.

Software Developer, IoT Dashboard Management System

Summary: Built an IoT dashboard management system, facilitating device management and data visualization in a cloud-connected environment.

Responsibilities:

- Stabilized and refactored the codebase;
- Designed new components and improved existing ones;
- Wrote unit and end-to-end tests;
- Investigated server-side issues;
- Mentored team members and conducted code reviews.

Technologies: JavaScript, TypeScript, React, Next.js, Redux, Redux-thunk, Lodash, ImmutableJS, SCSS, Jasmine, NightwatchJS, Jenkins, Docker, Git, Nginx.

Software Developer, Aggregation of Small Projects

Summary: Worked on converting designs to UI components for various small projects, managing advertisements and analytics, and implementing full client-side functionality.

Responsibilities:

- Converted Figma mockups to UI;
- Integrated Google Maps API;
- Implemented automation for search engine management;
- Built internal analytics;
- Supported marketing, client support, SEO, and business departments;
- Fully implemented client-side pages.

Technologies: JavaScript, CoffeeScript, React, jQuery, jQuery UI, Flexbox, CSS grid, PHP, Yii, Gulp, Parcel, Git.

Project Lead, Creative Studio Website Overhaul

Duration: July 2020 - April 2021

Summary: Led a project to revamp a static site for a creative studio, integrating NetlifyCMS and utilizing GatsbyJS for a modern, SEO-friendly, and high-performance website.

Responsibilities:

- Conducted requirements meetings;
- Planned project scope, timeline, deliverables;
- Implemented UI using GatsbyJS, code splitting, lazy loading;
- Integrated and configured NetlifyCMS;
- Performed unit and end-to-end testing;
- Provided training to team;
- Managed risks and timelines.

Technologies: JavaScript, Gatsby, Redux Toolkit, RTK Query, React hooks, React Router, Styled Components, NetlifyCMS, GraphQL, Git.

Software Developer, KaaIoT

Duration: October 2018 - June 2020

Software Developer, Volta One

Duration: 2018 - 2019

Software Developer, NDA

Duration: 2018

EDUCATION

Bachelor's Degree, Information Technologies Department, National
University of Technologies and Design