

Svetlozar Kostadinov // CV

13 yrs professional experience as a software developer.

Passionate about development. Interested in: **Android, Java, Kotlin, Functional programming, Reactive systems.**

Location: Sofia, Bulgaria

Nationality: Bulgarian

Languages: Bulgarian (native), English (professional)

Born: 18 April, 1983

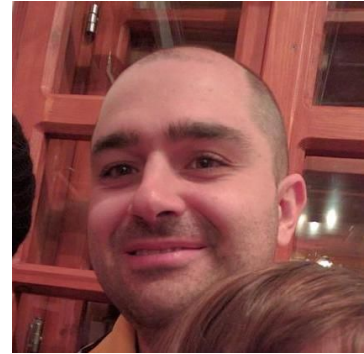
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Portfolio: <http://windrider.github.io>

GitHub: <http://github.com/sevar83>

StackOverflow: <http://stackoverflow.com/users/458668>



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EXPERIENCE

Android developer at Hi-Tech Research & Consulting

Oct 2012 - Nov 2016

End-to-end developer of [GeoWorld](#) app - advanced Android geocoordinate converter for geodesists and field surveyors. Offers unique features on the market. Role highlights:

- Solo developer responsible for all stages of the development lifecycle - from idea to maintenance, including deployment, localization, end-user documentation, analytics, customer tech support.
- Very good understanding of the Java OOP design patterns and paradigms like Clean Architecture, MVC, MVP and MVVM.
- Designed and implemented responsive UI/UX in portrait and landscape for phones and tablets following Material Design guidelines with usage of simple animations. Early adopted the new Material appearance.
- Gained in-depth knowledge of the Android platform, tooling and the Support libraries.
- Proficient in subjects like: Dependency Injection, Data Binding, SQLite for offline database storage, Accounts and sync.
- Fluent in multi-threading with Thread, Handler, AsyncTask, Service, IntentService, Loader, RxJava.
- Extensively worked with the most used widgets like RecyclerView, DrawerLayout, CoordinatorLayout, ActionBar, ViewPager, CardView, ProgressBar, fragments, layouts, dialogs, toasts, implemented custom widgets with canvas drawing, full-screen activities.
- Crafted XML layouts with precise measurements complying the Material Design spec.
- Experience with Android API's like Intents, Runtime Permissions, Notifications, ContentProvider, AccountManager, Camera, Sensors, GPS, Location Service, Files API, Internal/External Storage, File and Document Providers, MediaStore, MediaPlayer API.
- Experience with Google Maps API and Google Places API.
- Awareness of the common pitfalls and quirks associated with Android development.
- Extensively used libraries like RxJava, Dagger2, GreenDAO, Picasso, Retrofit, GSON, OkHttp, Stetho, Jsoup, JodaTime, ButterKnife, Parceler, PaperParcel, EventBus, Binding-collection-adapters, Timber, Stetho, DexCount.
- Experience with RESTful web services, http authentication, OAuth2, XML, JSON.

- Experience with scraping HTML web sites and using them as emulation of REST API with the help of Retrofit and Jsoup.
- Experience in database design using SQLite and Spatialite.
- Refactored a large fragment-based code into clean Reactive MVVM + Data Binding architecture.
- Experience in unit testing and integration testing on device and emulator using JUnit, Mockito, Espresso & UIAutomator.
- Implemented continuous integration using CircleCI for the project's Git repository in BitBucket.
- Successfully set up ACRA bug reporting backend and Google Analytics and used it to collect anonymous data about runtime problems to keep the users from experiencing fatal crashes.
- Implemented an in-app store with unlockable app features and content using the In-App Billing library.
- Implemented banner and interstitial Ads with AdMob and Ogury.co.
- Implemented a one-click APK publishing process for all app flavors and CPU architectures.
- Knowledge of integration, building and debugging of multi-architecture C/C++/JNI projects using Android NDK.
- Used Git and Mercurial as a version control system (VCS).
- Refactored into Kotlin to improve code clarity and simplicity of core classes.
- Ported Spatialite database for use in Android as a geospatial engine: <https://github.com/sevar83/android-spatialite>.
- Hands-on experience with hybrid apps using Cordova/PhoneGap.
- Hands-on experience with geospatial and map technologies like Spatialite, GeoNode, OsmDroid, OpenLayers, Leaflet, MapBox, MBTiles, GeoDjango, GeoServer, WMS, WFS.
- Studied the principles, standards, methods, categories of geospatial map projections and coordinate transformations, geodetic datums and successfully applied the knowledge into a complete product.
- Written a detailed 70 page end-user manual in Google Docs with screenshots, diagrams, tables and styles.
- Designed a vector logo and multiple icons in InkScape.

Java Developer at Hi-Tech Research & Consulting

Sep 2007 - Oct 2012

is an innovative Java desktop CAD software developed for companies, producers of [polystyrene panels for building construction](#). Heavily customized fork of the popular open-source project [SweetHome 3D](#). Sketching of simple construction plans of buildings. Analyzes the entire [building geometry](#) (walls, floor, ceiling, roof) and automatically generates a list of precise geometry shapes of the sliced panel pieces. The output geometry data is collected and formatted into a book of printable sheets. This book is a plan for the construction workers to assemble the panel pieces into a complete building structure.

Solo developer of the project (the fork);

- Implemented custom Swing MVC components;
- Heavy use of AWT Canvas and 2D graphics;
- Implemented Print Preview zoomable page layout;
- Developed a Roof editor (3rd party algorithm);
- Developed a Wall editor;
- Developed a 2D polyline sketcher with advanced snapping;
- Implemented dynamic 3D scene view with jMonkeyEngine.

ENVIRONMENT: Eclipse, Java SE 6, MVC, XML, Swing, AWT, Canvas, JIDE UI toolkit, Substance, Flamingo, jMonkeyEngine, JNLP, Applet.

C++ Developer at Hi-Tech Research & Consulting

Aug 2003 - Aug 2007

is a Windows CAD modeler software from the early 2000s written in C++ and based on the OpenCASCADE engine and OpenGL. Has 2D/3D modelling environment for interactive construction of geometry primitives, layers, coordinate systems, snapping, print layouts, property list UI. Heavy use of COM (the predecessor of .NET). Small core and modular design for high flexibility and extensibility through a custom plug-in framework based on COM interfaces.

- Member of team of 3-5 developers;
- Working with very large codebase;
- Extending the existing codebase with additional features, improving legacy code, bug fixing;
- Responsible for the GUI and the plug-in subsystems;
- Implementing COM plugins which provide interactive operations over visual geometry objects like polylines, splines, boxes, prisms and more.
 - Boolean operations (Cut, Union, Intersection);
 - 2D operations (Move, Rotate, Mirror, Scale);
 - 3D operations (Fillet, Chamfer, Extrude);
- Integration of the Prof-UIS MFC GUI library: implementing multi-pane layout, tree-view, toolbars, menus and a multi-selection PropertyGrid with binding to COM objects;
- Participated in an effort to integrate a parametric CAD modelling core provided by OpenCASCADE.

ENVIRONMENT: Visual C++, MFC, COM, ATL, IDL, WinAPI, GDI, OpenGL, [OpenCASCADE](#), [Prof-UIS](#).

Education

- BSc in Computer Sciences - Technical University of Varna (2001 - 2006)

Technical skills

- **Programming Languages:** Java (advanced), Kotlin (average, new), C/C++ (old, not practiced recently);
- **Other Languages:** SQL, HTML, XML, XSLT, CSS;
- **Mobile Technologies:** Android SDK, Android NDK, Location, Camera, Notifications, Google Maps, Sensors, Media;
- **Java-related technologies:** AWT, Swing, JNI, JNLP;
- **RDBMS & ORM:** SQLite, Spatialite, GreenDAO;
- **Debugging tools:** DDMS, Logcat, Stetho, Timber, LeakCanary, DebugDrawer, ACRA;
- **Testing tools:** JUnit, Mockito, Espresso, UIAutomator;
- **Version Control Systems:** Git, Mercurial;
- **IDE:** Eclipse, Android Studio, IntelliJ IDEA, Visual Studio, Atom;
- **Operating Systems:** Ubuntu Linux, Windows;

Niche & Other skills

- **Graphics and geometry:** 2D and 3D analytic geometry, CAD, OpenGL, Direct3D (basic, old);
- **Geospatial:** Maps, Map projections, geodetic datum transformations, Proj4, Spatialite, Georeferencing, Hands-on experience with WFS, WMS web services, GeoServer, GeoNode, Django, MBTiles, GeoJSON, TopoJSON;
- **Web:** Jekyll, WordPress, Xoops, Drupal, website administration & CMS management;

- **Multimedia:** Inkscape, Photoshop;

Personality

- Strong ability to self-motivate;
- Enjoys friendly teamwork but can also work and solve problems fully autonomously;
- Fast learner, loves to acquire new skills and develop existing ones;
- Tries to keep up with latest trends in technology and IT market;
- Has keen attention to detail;
- Loyal and word keeping;
- Challenge-driven;
- Favorite things: coffee, reading, sea diving, ski, cycling;

Open-Source / Personal projects

- An Android app for browsing movies and media from pluggable REST API's. Works also with HTML scraper as a replacement of GSON when there is no REST API but a plain-old HTML site. Written in Kotlin with the new [MVI](#) pattern. Puristic functional reactive approach used in all layers. Fully immutable models. Data abstraction layer above the network API's. Work in progress.
ENVIRONMENT: Kotlin, Dagger2, Mosby3, MVI, Retrofit2, OkHttp3, RxJava2, RxBinding, AdapterDelegates, PaperParcel, Stetho, Jsoup, etc.
- <https://github.com/sevar83/android-spatialite> - geospatial database ported for Android.
- <https://github.com/sevar83/SpatiAtlas> - example of geospatial content provider for Android.
- <https://github.com/sevar83/indeterminate-checkbox> - custom 3-state checkbox widget.
- <https://github.com/sevar83/IFCClassGenerator> - Object model generator producing a complete Java class hierarchy from a schema written in the EXPRESS data modeling language. The generator was used in PanelHome3D project to create IFC-compliant base classes.
- <https://github.com/sevar83/ExpressOMG> - EXPRESS language schema parser and DOM generator.