ARTEM KOBZAR

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RECENT EMPLOYMENT

In the industry since **2016**

Senior Software Engineer JetBrains **Aug 2021 – Today**

- Designed and implemented compilation of Kotlin using modern ECMAScript features: modules, classes, generators
- Designed and implemented file-to-file compilation for Kotlin-to-JS compiler (including an incremental compilation)
- Improved existing interop between Kotlin and JS/TS (collections interop, nominal interfaces, type-safe JS objects)
- Implemented TypeScript definitions generating for Kotlin-to-Wasm compiler

Senior Software Engineer/Consultant, Auth0 **Feb 2021 – Aug 2021**

- Reworked the tests codebase with custom code mods that reduced tests execution time by 15%.
- Designed and implemented Makefile linting process to keep the same API for all inner projects.
- Designed and implemented isolated integration tests for CLI which works with Docker and Keychain.
- Implemented engineering RFCs and proposals pipeline.
- 60% of tasks for the period were completed on my own.

Senior Software Engineer, Wrike **Aug 2019 – Jun 2020**

- Designed and implemented a development analytic process from scratch.
- Built an analysis platform with an “analysis as a code” approach.
- Built code editor extensions for fast code team-owner searching.
- Built a CI/CD webhooks for notifications and MR auto-assign of responsible for the project part people.
- Researched and redesigned API calls to reduce time to the interaction of Wrike web client at 30%.

Software Engineer, Hell Yeah LLC **Feb 2019 – Aug 2019**

- Built cross-platform zero-dependency DSA schemas implementations (ed25519, secp256k1, bls12-381).
- Built a cross-platform zero-dependency implementations hash function (ripemd160).
- Reduced the size of the chokidar package by 17x times.
- Boosted the performance at 200% for readdirp and chokidar with a stream with a backpressure pattern.
- Reduced the RAM usage at 30% for readdirp and chokidar with a stream pattern and microtask usage.

EDUCATION

National Technical University “Kharkiv Polytechnic Institute” **2015 – 2021**

- B.Sc in Computer Engineering, June 2019. GPA: 3.0 (ECTS: 86/100).
- Thesis topic: “Implementation of a strong type system in AOT for dynamically typed programming languages”.
- M.Sc in System Programming, June 2021. GPA: 3.0 (ECTS: 84/100)
- Thesis topic: “Research of Iterators implementation methods for polyglot virtual machines”.

TECHNICAL EXPERIENCE

Projects

- **Hegel**. A static type checker for JavaScript with Hindley-Milner type inference and a sound type system.
- **Noble Project**. Pack of libraries: ripemd160 hash function and secp256k1, ed25519, bls12-381 DSA schemas.
- **Sweet Monads**. Zero-dependency monads for TypeScript.
- **Schematics TS2GQL**. A compiler from TypeScript to GraphQL Schema Language for the NestJS project.

Additional Experience

- **TC39 Invited Expert (since 2023):** work on improvements to the Source Map Specification.
- **Instructor (since 2017):** teach students with JavaScript.Ninja Project.
- **Technical Podcaster (since 2019):** do the UnderJS podcast about compilers and engines for languages.
- **Technical Conference co-organizer (from 2019 to 2021):** co-organize the HolyJS conference.

Languages and Technologies

- **Primary:** JavaScript, TypeScript, Kotlin/Java, SQL.
- **Secondary:** Dart, Python, Ruby/Crystal.
- **Basic Knowledge:** C++, Haskell, Rust, OCaml, GoLang, Elixir.