Georgy Dunaev

Software Engineer & Formal Verification Specialist · M.Sc. Mathematics

Berlin / Potsdam, Germany · georgedunaev@gmail.com · https://georgydunaev.github.io

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To: Engineering & Research Hiring Team

Re: Formal Verification / High-Assurance Systems Engineering

Dear Hiring Team,

I am writing to express my strong interest in formal methods, automated reasoning, and high-assurance systems development roles at your organization. With a strong background spanning pure mathematics (M.Sc. Candidate, University of Potsdam) and computer science (M.Sc., Lomonosov Moscow State University), alongside 3+ years of professional backend development in OCaml, C++, and Linux virtualization, I bring a rare combination of mathematical foundational rigor and practical software engineering.

My work centers on machine-checked verification and interactive theorem proving. I am the architect of the *Obelisk* proof assistant in Standard ML (Poly/ML), designed around an LCF-style kernel for Morse–Kelley class theory with zero implicit computation. In 2020, I authored and published a formal mechanization of the classical *Recursion Theorem in ZF* in the peer-reviewed Archive of Formal Proofs (Isabelle/ZF).

In industry, I developed distributed virtualization backend services at BI.ZONE in asynchronous OCaml, formally verified smart contracts using code-generation pipelines, and wrote firmware for microcontrollers at LG Electronics. I am comfortable working across Lean 4, Rocq (Coq), Isabelle, OCaml, SML, and C++.

I am based in Berlin/Potsdam with German work authorization (§16b AufenthG, with full eligibility for EU Blue Card / §18b transition upon an employment contract). I would welcome the opportunity to discuss how my foundational expertise and verification engineering skills can help your team build rock-solid, provably correct systems.

Sincerely,

Georgy Dunaev