

ALEKSANDR VORONTSOV

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WORK EXPERIENCE

PolyAI

Aug 2022 - Aug 2023

Full-Stack Software Engineer - Platform

London, UK

- Implemented node duplication feature in a graphing interface (**React, TypeScript, Python**), enabling seamless copy-pasting and 95% reduction of time for users to transfer nodes between projects.
- Drove design and implemented end-to-end user interaction stack (**React, TypeScript, Python**), including user group administration, API key management, and robust test infrastructure with user generation.

Visa

Jun 2021 - Aug 2022

Graduate Software Engineer

London, UK

- Developed internal tool to enhance development processes (**Golang**). The tool aimed to increase architecture and analysis by removing manual analysis of complex interfaces and message specifications, decreasing implementation time from 7 days to less than 5 seconds.
- Automated the process allowing for seamless transition from spec to entry point of the Open Visa Net application to define messages for processing.

King's College London - <https://strype.org/>

Feb 2020 - Jul 2020

Software Developer (Part-time)

London, UK

- Designed and implemented initial prototype for a Scratch-like online editor (**Vue.js**) for micro:bit devices in collaboration with the Micro:bit Educational Foundation.
- Developed translation from code blocks defined in JSON to Python code, including syntax validation, to run on Micro:bit devices.

Perfocal

Oct 2017 - May 2019

Full-Stack Developer

London, UK

- Individually managed full development lifecycle, from design to maintenance, across entire platform and infrastructure.
- Set up custom static page templating solution (**TypeScript, EJS**) for use in generating static landing pages with more efficiency, increasing user impressions by roughly 200% within 2 months.
- Developed booking infrastructure and platform (**React, Node.js**) used for pop-up photography sessions.
- Implemented an automated email and SMS digest system (**Node.js, TypeScript**), improving customer-photographer communication and increasing website engagement rate by 78%.

PROJECTS

CharGen - <https://char-gen.com>

Platform (**React, TypeScript**) for generating AI character images based on D&D character sheets. Includes integration with **AWS Cognito** for user authentication and payments processing with **Stripe**.

Aver - <https://github.com/a-vorontsov/aver>

Strongly-typed, compiled programming language with a JIT (Just-in-time) compiled runtime and generics. Bytecode compiler developed in **OCaml** and JIT runtime implemented using **RPython**.

Weather - <https://github.com/a-vorontsov/weather>

Command line tool written in **Nim** for retrieving the weather forecast for your current location or a given city.

EDUCATION

King's College London

September 2018 - June 2021

BSc Computer Science, First Class Honours

London, UK

- 84% in final year dissertation discussing the implementation of a compiled programming language named Aver. Source code available at <https://github.com/a-vorontsov/aver>.
- 95% in Software Engineering group project working on a **React Native** application with a client.

SKILLS & INTERESTS

Languages & Frameworks - JavaScript, TypeScript, Node.js, React, Java, Go, OCaml, Python, SQL, PostgreSQL, NoSQL, Redis

Software & Tools - Git, Unix/Linux, Docker, AWS (S3, CloudFront), Webpack, NPM, Jenkins, CI/CD Pipelines