

# Nikolai Savinkin

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**Summary** — Ambitious and self-motivated full-stack software engineer with 3 years of professional programming and architectural experience. Passionate about designing and delivering reliable and high performance software with a constant focus on value to the end user. Familiar with a wide range of technologies, particularly TypeScript/JavaScript and Java.

## Experience

### Yushu Tea Gallery

Tea Room Manager - Squarespace, Stripe, HTML/CSS

September 2024 – Present

London

- Built a diverse team of different experience and background that helped to build an inclusive team culture.
- Took the initiative to propose and implement an online booking system, improving efficiency and efficacy, increasing bookings by over 300%, and eliminating no-shows.
- Consistently re-evaluated what the experience is like for the user with regular AB tests and user interviews focusing on accessibility and enjoyment.
- Adapted agile software development principles to a store context reducing upfront costs and risk of new ideas after identifying gaps in our knowledge of efficient processes.
- Maintained website and online shop.
- Analysed sales data to determine optimal stocking strategies.

### Progress Factors

Full-stack Software Engineer - Java, Postgres, React, Node.js, MongoDB, Azure

Feb 2022 – Aug 2024

Remote, Berlin

- Technical lead and architect of a new multi tenant 'analysis and reporting' MERN web application used by major German companies.
- Considered all options regarding the technology stack, architecture, and logistics of the new application including costs, risks, and wider implications, based on overall design goals and discrete prototypes.
- Took responsibility to coordinate all aspects of a production cloud application including: data store, compute, networking, security, scalability, identity and access management.
- Maintained the existing Java application to ensure smooth continued operation of existing services.
- Collaborated with stakeholders to refine requirements and create and maintain Roadmaps, getting advice and information when needed, being adaptable to emerging business needs.
- Built a team of 3 developers, considered the skills and interests of all team members, (such as front-end/back-end leaning) delegating work to aid the learning and development of all.
- Led an agile team of developers to set and consistently meet deadlines using industry tools such as Jira and Bitbucket as well as internal project management tools.
- Authored and updated technical and process documentation used to successfully onboard new team members and give people the confidence to embrace change; helping them to understand changes and the reasons they are being put in place.
- Communicated with designers and users to test hypotheses and analyse this information to support decisions in logical design.
- Built and tested a range of prototypes with various technologies to inform technical decisions, taking the opportunity to learn as much as possible about the trade-offs and design goals of different languages, frameworks, architectures, and technologies of other kinds.

## Skills

**Productivity** Atlassian Suite, GitHub, Google Suite, Notion, MS Office Suite, Miro

**Cloud** Azure, Mendix, Mongo

**OS** Debian, MacOS, NixOS, Windows 10/11

**Languages** Mandarin, Russian (Intermediate)

**Programming** Bash, C, Elixir, Java, Python, Rust, SQL, TypeScript

**Frameworks** Elixir Phoenix, Express, React

**Data** CUDA, NumPy, OpenCL, Pandas, PyTorch

## Education

### University of Bath

MSc (Hons) in Computer Science – 2:1

**AI** Artificial Intelligence, Intelligent Control and Cognitive Systems, Computational Intelligence

**ML** Machine Learning, Reinforcement Learning, Computer Vision

**Maths** Computer Algebra, Analytical Mathematics, Discrete Mathematics

**Computing** Computer Graphics, Networking, Cybersecurity, Databases

## Master's Research Project

*Machine Learning as a Data Analysis Tool for High-Throughput Image-Based Cell Profiling of Epithelial Cells Interfacing With High-Aspect-Ratio Nanoneedles*

- Communicated with a cross departmental research team of biological and material scientists
- Became familiar with the related literature to better understand the domain and context of the data
- Reviewed the team's methodology to understand the pre-processing performed on the experiment's raw data
- Compared the utility of different Machine Learning techniques in analysing the dataset
- Investigated which techniques could be useful in future complex experimental data

## Projects

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### Guest Who? Party Game

*A browser game for any number of guests to break the ice and get to know each other*

- One guest is randomly selected to be 'It' and everyone must earn clues to deduce who it is!
- MongoDB, Express.js, React, Node.js stack Single Page Application
- Rapidly iterated prototypes with users
- Prioritised value to the user

### Networked C data store

*A server and client application written in C, using system calls and standard library*

- Motivated by a desire to learn the underlying technology of many networked applications
- Considered the design of a custom application layer network protocol and how to use it to extend an existing API
- Experimented with different approaches to memory management in longer running applications
- Gained new appreciation for the difference between heap and stack memory, often obfuscated in other languages

## Awards

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- 2nd degree black belt in Tae Kwon-Do
- Duke of Edinburgh Silver Award
- Chief Scout Award
- Jack Petchey Award