

# Andrey Trebler

## Curriculum Vitæ

Vestre Helleveien 5B

4318 Sandnes

Norway

☎ +47 45100719

✉ andrey@trebler.dev

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### Personal Information

Date of birth 05/04/1986

Citizenship Norwegian, originally from Kazakhstan

Marital status Married, father of 3

### Key Qualifications

Experienced \*nix-oriented software engineer with passion for backend, system design, and design of APIs; interest in development of rich reactive web applications; and fun of using advanced features of Kubernetes for modern containerized deployment

### Work Experience

12/2023–... **Senior Software Engineer**, W3Schools Network, Sandnes, Norway

- Backend/Frontend: node.js (20) / Next.js, TypeScript (ES2023)
- DevOps: AWS Lambda, AWS CDK/AWS CloudFormation, AWS CodePipeline
- Technologies: Amazon DynamoDB, Amazon SQS, Amazon S3, OpenAI API

01/2019–12/2023 **Senior Software Engineer / Tech Lead**, eDrilling, Stavanger, Norway

Team lead and software architect responsible for transition to cloud and design of modern APIs. Development and deployment of highly available and scalable Kubernetes-native systems based on microservices architecture, event-driven architecture. Design and implementation of public HTTP REST(ful), SSE and WebSocket APIs. Development of reactive web applications

- Backend: Go, TypeScript/node.js (ES2023), C++20, Python, Qt
- Frontend: TypeScript/Vue.js (2/3), TypeScript/React
- DevOps: Docker, Kubernetes, Kustomize, Azure, AWS, GitHub Actions, GitLab CI/CD
- Technologies: RabbitMQ (AMQP / Streams), MongoDB, Redis, WebSockets, OpenAPI 3.0, Server-Sent Events, Traefik, Kubernetes API, OAuth 2.0, Keycloak, Azure AD

10/2016–01/2019 **Full Stack Developer**, timeanddate.com, Stavanger, Norway

Development of numerical algorithms, APIs, and software for astronomical simulations

- Backend development (in C99) of internal and external APIs providing astronomical data
- Frontend development (in JavaScript using D3 and three.js frameworks) of browser-based applications for astronomical visualization. ECMAScript 5, CSS/SASS and HTML5

03/2016–10/2016 **Software Engineer**, Steinsvik, Førresfjorden, R&D Department

Development of software for fish farming industry

- Development (frontend and backend) of cross-platform software for camera control and monitoring at fish farms in Qt/QML and C++11
- Support of existing software implemented in NI LabVIEW

12/2013–02/2016 **Simulator Systems Analyst**, MHWirth, Stavanger, Simulators Department

Development of real-time simulators for oil and gas industry

- Development of mathematical models for equipment simulation
- Control system software implementation
- HIL testing of control system software

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## Education

- 06/2010–06/2013 **PhD Program in Atmospheric sciences**, *University of Oslo—UiO*, Faculty of Mathematics and Natural Sciences, Department of Geosciences  
Section for Meteorology and Oceanography
- 10/2008–05/2010 **PhD Program in Mathematical Modelling, Numerical Methods and Programming**, *Lomonosov Moscow State University*, Faculty of Computational Mathematics and Cybernetics  
Department of Nonlinear Dynamical Systems and Control Processes
- 09/2003–06/2008 **MSc in Applied Mathematics and Computer Science with speciality Mathematician, System Programmer**, *Lomonosov Moscow State University*, Faculty of Computational Mathematics and Cybernetics, GPA: 4.47 (out of 5.0)  
Department of Nonlinear Dynamical Systems and Control Processes

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## Programming skills

GNU/Linux, macOS, OpenBSD

*Programming* TypeScript/JavaScript (ES2023), node.js (20), Deno, Go, C++20/23, Python, C99, Bash, HTML/CSS/SASS

*Frameworks* Qt, Vue.js, Angular, React, Next.js, three.js, D3.js, express.js, Bulma/Bootstrap, FastAPI, Echo

*DevOps* Docker, Kubernetes, AWS Lambda, AWS CDK/CloudFormation, Azure, DigitalOcean, GitHub Actions, GitLab CI/CD, AWS CodePipeline, Ansible, Kustomize, Helm

*Bug tracking systems* Jira, Redmine, GitHub, TFS

*Technologies* Redis, MongoDB, DynamoDB, RabbitMQ, WebSockets, AMQP, MQTT, SSE, OpenAPI/Swagger, GraphQL, Traefik/NGINX/Haproxy, S3, OpenAI, OAuth 2.0, Keycloak, WebGL, JSON-RPC, esbuild, eslint, pre-commit, webpack, Vite, Poetry, pydantic, jq/yq

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## Languages

Russian Native

English Advanced

*IELTS 7.5 (L: 7.5; R: 8.5; W: 7.5; S: 7.0) ~ C2*

Norwegian Intermediate

*Norskprøve 2 (A2)*

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## Hobbies

IT, science, reading, chess, astronomy, table tennis, squash, volleyball, badminton, cars

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## Select Publications

- [1] **A. Trebler**, A. Stohl, and P. Seibert, “Identification of Greenhouse Gas Emission Sources Using Analytical Inverse Method,” in *Algorithmic Analysis of Unstable Problems: Abstracts of the International Conference Dedicated to the Memory of V. K. Ivanov*, Institute of Mathematics and Mechanics, Ural Branch of the Russian Academy of Sciences, Ekaterinburg, 2011, <http://aanz.imm.uran.ru/aanz/AANZ-2011-final.pdf>.
- [2] **Andrey Trebler**, On Cascades of Bifurcations Leading to Chaos in Several Nonlinear Dissipative Systems of ODEs, *Communications in Nonlinear Science and Numerical Simulation*, vol. 15, no. 10, pp. 2974–2986, 2010, doi: 10.1016/j.cnsns.2009.11.019.
- [3] **Andrey Trebler**, A Transition to Chaos in Rucklidge Model of Double Convection, in *CIMCA '08: Proceedings of the 2008 International Conference on Computational Intelligence for Modelling Control & Automation*, 2008, IEEE Computer Society, pp. 952–957, doi: 10.1109/CIMCA.2008.46.