

Demid Zykov

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SUMMARY

Highly motivated and detail-oriented **Backend Software Developer** passionate about creating innovative and secure software solutions. Possesses in-depth knowledge of programming languages, including Java, Python, C, and JavaScript. Experienced in full-stack development with expertise in designing, developing, building, testing, and shipping complex software solutions with high-security levels and a proven track record of creating high-quality deliverables, consistently exceeding client expectations.

PORTFOLIO PROJECTS

Chrono: Online publishing [platform](#) and [website](#) where readers find dynamic thinking, and where expert and undiscovered voices can share their writing on any topic. 04/2023 - 05/2023

Developed the entire architecture for Chrono, including web servers, databases, backend, and frontend using *Python, Javascript, Dart, Flask, Node.js, Flutter, PostgreSQL, Nginx, and DigitalOcean*.

- Implemented a high-performance API using Flask with extensive posting and user interaction functionality, resulting in higher user engagement.
- Designed and coded the multimedia-rich platform using Flutter that streamlines the writing process and boosts author productivity, leading to increased production and enhanced user experience.
- Engineered robust security measures for user login, incorporating database encryption, which resulted in a 100% secure platform that protected user privacy.
- Created a comprehensive real-time metrics dashboard for articles that enabled views, visits, and reads, resulting in more informed editorial decisions and more effective ad placements.
- Leveraged cloud computing technology (DigitalOcean) for platform deployment, ensuring 99% uptime and 95% performance rate and providing users with a reliable and scalable service.

IRC Web Chat: [Text-based chat system](#) for instant messaging with anonymity and privacy. 02/2023

Coded frontend and backend using *Javascript, Node.js, HTML, and CSS*.

- Architected and made a cutting-edge real-time messaging feature that provides seamless communication and unmatched responsiveness, bolstering customer satisfaction and retention.
- Built highly secure private and public chat features, integrating advanced security measures to ensure user anonymity and protection and promoting a safe and user-friendly platform.
- Developed comprehensive chat functionality, allowing users to create and invite others to their chat groups, leading to enthusiastic user
- Devised state-of-the-art security measures for user login, utilising custom database schema and sophisticated encryption protocols to enhance platform security, resulting in zero security breaches.

circles.io: [Online multiplayer IO-style game](#) with user customization and private/public servers. 01/2023

Designed graphics, web server, frontend and backend using *Javascript, Node.js, HTML, and CSS*.

- Leveraged Node.js and other technologies to develop a novel online multiplayer IO game, incorporating features for server creation and joining for maximum user interaction and excitement.
- Programmed real-time game mechanics and functionality, enabling users to create new and join existing servers, enhanced their experience, increased user interaction, and provided an exciting and engaging gameplay environment.

Life Evolution: An [AI](#) that learns how to survive in a given environment to demonstrate possible simulations. 09/2023

Engineered AI and graphics using vanilla *Java, AWT, and Swing*.

- Assembled an AI using basic Java to ensure high performance.
- Designed visual simulation to improve decision-making skills by being able to test different evolutionary scenarios, which increased user interaction and engagement.
- Created a real-time metrics dashboard for simulations, which provided a new opportunity for deeper analysis of an AI, including comparing individual genomes.

PyShell: A [voice assistant](#) that supports shell commands and can be expanded by the user's commands out of the box.

07/2023

Designed the entire architecture with data structures using *Python*.

- Coded an offline voice assistant using Python and AI libraries to increase user productivity.
- Programmed optimisation system for custom commands to improve user experience.
- Utilised all shell functionality and features, including pipes and redirections for greater user interactivity.
- Operates in two languages, English and Russian, to increase market reach.

EDUCATION

The University Of Toronto Mississauga

09/2018 - 06/2023

Honours Bachelor of Science: Computer Science, Philosophy, and Mathematics

Appleby College

09/2015 - 07/2018

Appleby College is a leading Canadian day and boarding school and an international independent school.

- Senior One Leader: provided academic help for 15 students and organised events for 100 students.
- Deck Captain: provided social, academic and behavioural assistance for 70 students and organised events for 250 students.

WORK EXPERIENCE

apprvl

apprvl is a startup solution for photographers and retouchers.

05/2019 - 06/2020

Software Development Engineer: developed and managed backend, web servers (AWS), and network architecture.

- Built and deployed a backend using the Ruby on Rails framework to decrease development time and increase flexibility.
- Managed Amazon Web Services to ensure fast response time, high uptime, and high-security standards.
- Integrated CI/CD to guarantee fast and frequent customer delivery to increase customer satisfaction.

CERTIFICATES

Syssoft Webinars in Information Security for Advanced Users

06/2019 - 11/2021

Certificates in Veritas Backup Exec, NGFW, Citrix ADC, VMware, NGINX, and Apache.

TryHackMe

07/2022 - Current

Pentesting Principles, Web Hacking, and Penetration Testing.

VOLUNTEER EXPERIENCE

Mentor Collective

05/2018 - 01/2020

The leading provider of impact-driven mentoring programs that partners with 180+ higher education institutions to provide all students with a relevant, trained peer, professional, or alum mentor.

- Created a sense of community and belonging for 2 students and helped them increase their grades by 15%.
- Integrated 2 international students into Canadian society that helped them participate in the international CERN educational programme.

SKILLS & INTERESTS

Technical Skills: User Interface & User Experience Design, Accessible Web Development & Design, Algorithms & Data Structure Designs, Database Management, Optimization, APIs, Kernel Management

Languages & Tools: Python, Java, Javascript C/C++, Dart, Bash, Flask, Django, Node.js, Spring, Flutter, React.js

Soft Skills: Project/Operations Management, Flexibility, Decision Making, Creative Thinking, Strategic Planning, Multi-tasking, Adaptability, Research & Strategy, Problem Solving, Responsibility, Teamwork, Networking

Other Skills: Nginx, Apache, Docker, PostgreSQL, UNIX, SEO, Google Cloud, Digital Ocean, Agile

Languages: English (fluent), Russian (fluent), Bashkir (conversational)

Interests: Game Development & Design, Story Telling, Swimming, Boxing