Zhumazhenis Dairabay
Software Engineer

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Education

- **Nazarbayev University** — Nur-Sutan (Astana), Kazakhstan
  BSc in Electrical and Computer Engineering; Acceptance rate: 20% — *Aug. 2016 – Jun. 2020*
  Related courses: Programming for Engineers, Software Engineering, Performance and Data Structures, Algorithms, Computer Networks, Computer System Architecture, Embedded Microcontrollers.

Skills

- **Languages:** Java, C++, Python 3, Typescript, Javascript, SQL, HTML.
- **CS fundamentals:** Algorithms & Data Structures, Object Oriented Programming, Design Patterns, System Design.
- **Technologies:** Linux, Git, Spring Framework, Angular 7, PostgreSQL, RabbitMQ, Redis, GitLab CI / CD.

Experience

- **BI Innovations (BeInTech)** — Nur-Sultan (Astana), Kazakhstan
  Software Engineer — *Apr 2019 – Present*
  Project: BIM (Building Information Modeling) Cost - web application for calculating the volume of the building construction (sent from Autodesk Revit) by assigning corporate normatives and classifying work breakdown structure.
  - Implemented service for optimizing real business process from 2-3 months to less than 3 hours by transforming arithmetical and boolean operations to tree data structure and applying simple DFS algorithm.
  - Improved HTTP response performance by applying paginated requests. Handled data loss and process lifecycle by applying asynchronous pub-sub RabbitMQ. Otimized SQL queries by removing multiple sequential database calls in DAO layer. Integrated with external REST API service by applying RxJava and Redis for caching costly HTTP requests.
  - Implemented server-side alternative of Excel Spreadsheet formulas using JavaScript Script Engine in Java. Had experience from software development to production deployment.
  - **Languages and Technologies:** Java, Typescript, SQL; Spring Boot WebFlux, Angular 7, Angular Material, RabbitMQ, Redis, PostgreSQL, Nginx, Linux, GitLab CI / CD.

- **HIBRAIN** — Nur-Sultan (Astana), Kazakhstan
  Junior Software Engineer — *Dec 2018 – Mar 2019*
  Project: Torelik – application for the judicial proceedings e.g. civil, criminal and other cases.
  - Implemented REST API using Java EE. Fixed bugs in PDF, DOCX documents generation and got acquainted with system design with 30+ servers: Keycloak SSO, Elasticsearch, load balancers, pub-sub servers.
  - **Languages and Technologies:** Java, Javascript; Java EE, EJB, JAX, JPA, Hibernate ORM, PostgreSQL, AngularJS, Bitbucket, Jira.

- **nFactorial Incubator Bootcamp 2017** — Nur-Sultan (Astana), Kazakhstan
  Android Development Participant — *Jun 2017 – Aug 2017*
  Project: Makhal-Matelder Android App
  - Built Makhal-Matelder Android App for Kazakh proverb. Bootcamp was a great opportunity to get acquainted with the software development. Deployed to Google Play Market: 2K+ installs, 4.1 stars.
  - **Languages and Technologies:** Java; SQLite, Android Studio.

Projects

- **Kymyz Factory - IOT Course Project**
  Web application and Raspberry Pi.
  - Implemented the communication between Spring Boot backend application server and Raspberry Pi using pub-sub RabbitMQ AMQP, and REST API. Used Nginx as a web server for Angular Frontend Application. Deployed to Microsoft Azure Virtual Host.
  - **Languages and Technologies:** Java, Python 3, Typescript; Spring Boot, Angular 7, PostgreSQL, RabbitMQ, Nginx, Microsoft Azure Virtual Host.

- **ZhaiMaiBot**
  Photo Tagging Telegram Bot.
  - Applied open source face recognition model to extract face features. Implemented the service for accepting user requests using Flask and Telegram API. Deployed to Heroku.
  - **Languages and Technologies:** Python 3; Flask, Telegram API, PostgreSQL.

- **TweetHide World Cup 2018**
  Chrome Extension for hiding World Cup 2018 related posts on Twitter.
  - Trained binary text classifier for recognizing whether the tweet is about World Cup 2018 or not, using NLTK, SKlearn. Implemented REST API using Flask. Deployed to Chrome Web Store.
  - **Languages and Technologies:** Python 3, Javascript; Flask, Chrome Extension API, SKlearn Machine Learning Library, NLTK.

Achievements

- **International Mathematics Competition 2019 – Bronze.** Top 60%. Organized by University College London. Participated 350+ students from 70+ universities.
- **ACM ICPC Quarter Final 17', 18' – Participant.**
- **10th International Zhautykov Mathematics Olympiad 2014 – Bronze.** Top 40%. Participated 200+ high school students from 15+ countries.
- **Asian Pacific Math Olympiad 2015 – Bronze.** Top 20% among 100+ Kazakhstani High School Participants.
- **17th Kazakhstan National Math Olympiad 2015 – Bronze.** Top 2-3% among 600-700 Kazakhstani High School Students.
- **Astana Math Olympiad – 2nd place.** Organized by Kazakhstan Branch Lomonosov Moscow State University.