

Dilmurod Valiev, Software Developer, AI/ML/XR Engineer

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EMPLOYMENT HISTORY

Mar 2021 **AI/ML Engineer, Researcher, Inha University AI Lab – Incheon, Korea, Republic of**

- Python, OpenCV, Keras, Unity, Hololens
- Modified existing Speech-to-text translation model by adding Korean language for Aircraft Maintenance project in Industry 4.0
- Implemented various speech-to-text models to experience which one works better for generating sequence of symbolic function from user query
- Gathered and organized information for research purposes, conducted surveys on various topics related Content creation as well as Speech-to-text models
- Maintained existing AI for creating automatic annotations for multiple videos, checked and made reports about the results
- Wrote a research paper, reports and summaries regarding Neuro-Symbolic AI

Sep 2021 – Jan 20 **Full-stack web developer, Designmodo Company – Brooklyn, NY, USA**

- JavaScript/React.js, PHP/Laravel, MySQL
- Handled 3-4 user reports in Help Scout per day to address customer inquiries and concerns.
- Improved the performance of the application by 52% during rendering of multiple components and their previews in sidebar.
- Implemented Undo/Redo history for any actions as well as separate one for only text editing.
- Implemented new text editor using SlateJS from scratch and adapted to the application UI to work smoothly.
- Improved the image storing algorithm including backup versions to save server space (24% more efficiently)
- Implemented projects migration from old to new version using Laravel Jobs by parsing existing HTML templates into JSON format.
- Implemented real-time notifications from database about migrations status etc. using Web Sockets

Aug 2021 – Jan 2022 **Flutter Developer, Findme dating – Togliatti, Russia**

- Dart/Flutter, PHP/Laravel, MySQL, Restful API
- Created, maintained and improved such mobile applications as Horoscope, Findme Dating, Findme Compatibility
- Added more details to monitor in backend for administrators.
- Improved app performance by 27% by optimizing rendering sequences and parameter sharing in different components.
- Added custom animations, functionality, UI elements, dark mode in Findme Dating app.

EDUCATION

Sep 2016 – Aug 2020 **Bachelors, Inha University – Tashkent, Uzbekistan**

- Graduated as the #1 student with the highest CGPA 4.48/4.5 (0.99%) among 270 students
- Dean's List over all 8 semesters (2016-2020)
- Received Full-scholarship over 7 semesters (2016-2020)
- Awarded Jungseok Scholarship for outstanding grades among peers
- Won in AI Contest during Capstone Project (Road Line Detection with the most accuracy)

Mar 2021 **Integrated (Masters & PhD), Inha University – Incheon, Korea, Republic of**

- CGPA 4.18/4.5 (0.93%)
- Received Jungseok Scholarship (2021-2022)
- Researcher at AI Lab under supervision of Professor Jo Geun Sik

PUBLICATIONS

- **Interaction with Industrial Digital Twin Using Neuro-Symbolic Reasoning.** Siyaev, A.; Valiev, D.; Jo, G.-S. Sensors 2023, 23, 1729. <https://doi.org/10.3390/s23031729>

PROJECTS

- **PC/VR/AR application to interact with digital twin using Neuro-Symbolic Reasoning** – Unity, Python, C#, Tensorflow, Keras, Google Cloud - Developed 3D application for multiple platforms to manipulate with 3D scene using Neuro-Symbolic Reasoning, Natural Language Processing (NLP) as well as understanding context and knowledge.
- **Road Line Detection with Yolo & CRNN (#1 in accuracy among 12 teams)** – Python, Tensorflow, Keras – Developed a road line detector for Capstone Design project where a toy car could reach the destination passing through obstacles with the least errors and shortest time.