KHA VU CHAN

chankhavu@gmail.com hav4ik.github.io ha-vu-tran hav4ik

EDUCATION

Master of Science, in Applied Mathematics — Sep 2017 – Jun 2019
Taras Shevchenko National University of Kyiv, Faculty of Computer Science and Cybernetics, concentration on Computational Mathematics.

Bachelor of Science, in Applied Mathematics — Sep 2013 – Jun 2017
Taras Shevchenko National University of Kyiv, Faculty of Computer Science and Cybernetics, concentration on Computational Mathematics.

RELEVANT EXPERIENCE

Microsoft, *Redmond, USA* — Oct 2019 – current
Software Engineer at Excel Accessibility Team.

- Development of Excel features for all platforms: Windows Desktop (C, C++), Web (S#, TypeScript, C#, .NET), and Mac OS (Objective-C).

Samsung Research, *Kyiv, Ukraine* — Feb 2017 – Oct 2019
Machine Learning and Software Engineer at Visual and Context Recognition Lab.

- Optimized neural nets for On-Device AI using the following techniques: pruning, quantization, distillation, multi-task learning, weights sharing, and more. Achieved State-of-the-Art results with **50 times improvement** in performance and memory usage (2018 – 2019).
- Trained State-of-the-Art Deep Learning models for Monocular 3D Scene Reconstruction and Semantic Understanding (2017 – 2018).

RESEARCH & OPEN SOURCE

Hydra – a Deep Multi-Task Learning framework — 2019 – 2020
Written in PyTorch, got **81 stars** and **8 forks** on Github (github.com/hav4ik/Hydra).

- Developed a new Neural Architecture Search algorithm for Multi-Task Neural Networks and implemented a few other State-of-the-Art Multi-Task Learning and Multi-Objective Optimization methods.

Eyesight – a framework for Real-Time Computer Vision — 2020
A framework for high-performance Computer Vision pipelines at the Edge. Supports Coral Edge TPU, Raspberry Pi Camera, and more (github.com/hav4ik/eyesight).

Non-invasive & radiation-free Breast Cancer screening — 2016 – 2018
at Department of Computational Mathematics, collaborating with Institute of Experimental Pathology, Oncology and Radiology of Kyiv. Publications:

- D. A. Klyushin, D. G. Shervarly, **Chan K. Vu**, E. V. Golubeva, N. V. Boroday (2017). "*Fractal Analysis of Malignancy-Associated Changes in Interphase Nuclei of Buccal Epithelial*". in Journal of Num. and Appl. Mathematics (in Russian).

AWARDS AND HONORS

All-Ukrainian Computer Science Competition (3rd place) — 2013
All-Ukrainian *Intel ISEF* Competition (3rd place) — 2013
All-Ukrainian Computer Science Competition (3rd place) — 2012
All-Ukrainian *Intel ISEF* Competition (3rd place) — 2012
Also participated in many other math & programming competitions. **Kaggle Expert.**

SKILLS

Languages: C, C++, Python, C#, S#, TypeScript, SQL, Kusto Query Language, Bash, Objective-C, HTML, CSS, Java, JavaScript, MatLab.

Technologies: TensorFlow, PyTorch, Keras, TF-Lite, OpenCV, scikit-learn, pandas, numpy, .Net, Django, Unreal Engine, QT, Android Programming, Caffe, Linux, Git.

TEACHING EXPERIENCE

Programming and Advanced Algorithms lecturer — 2014 – 2016
Created a training program for the most talented students for upcoming competitions.

LANGUAGES

English (TOEFL iBT 102), Vietnamese (native), Russian (native), Ukrainian (native)