PROGRAMMING SKILLS

I have senior developer skills in multiple programming languages in C++, ANSI-C, C#, Java, VB and multiple web programming languages / technologies such as HTML, Javascript and CSS. Additionally I have good programming skills in Python, Scala, R and Cuda.

I have worked with e.g. following databases: MS SQL, DB2, MySQL, Oracle, MariaDB, PostgreSQL, SQLite, MongoDB, CouchDB, Cassandra and HBase. I am also very familiar with dozens of development tools/methods like:

- IDEs: Visual Studio, IntelliJ, Eclipse, CodeWarrior, Xcode
- UML tools: MS Visio, OmniGraffle, Enterprise Architect, SDEdit
- CD/CI: Agile, DevOps, Jira, Git(hub), SVN, Confluence, Jenkins, Docker, Jupyter Notebook, Anaconda and Tmux

Below are some selected samples of systems that I architecture designed and programmed.

C++/C# Client/server

- Real-time, carrier class, multithreaded, high availability client/server
- Process live TV video, poster images and metadata (4 different standards) from multiple TV channels
- Implemented over 15 000 source code lines, runs still on cable operator's production environment

C++ Relational Database Engine

- A database engine that enables CRUD operations for smartphone's IAP, SIP, XMPP, SCCP, VoIP settings database
- Part of smartphone's Operating System

Seamless Handover

- A solution that enabled smartphone to switch between GSM and WIFI calls (both voice and video) networks in case of sudden drop of network signal coverage
- Implemented in C++, over 10 000 source code lines

Core Smartphone Telephony System

- Building a secondary telephony system for WIFI to support VoIP and video over IP calls, and multimedia applications that utilize WIFI
- Consisted executables, DDLs, client/servers, plugins, frameworks
- Multiple implementations to smartphone operating system; approximately 30 000 new or modified source code lines into 1 million source code base line

E-Commerce

- Designing and implementing E-Commerce solution (Java) as part of platform
- Consisting product, consumer, security and billing / invoicing management

Metadata Repository and Search Engine

- Design and Java implementation of application, complex metadata database, search engine and messaging queue system
- Metadata database included metadata for Video on Demand and live TV channel

Cisco CallManager Telephony

- Architecture design, implementation and porting of Cisco CallManager's client phone SW into Nokia smartphone
- Signaling protocol implementation to support call, call forwarding, call on hold, conferencing, etc.

Artificial Intelligence (AI) Image Recognition

- Programming neural networks AI solution to recognize images with 98% accuracy
- Used technologies, methods, tools and libraries: AWS EC2 P2 with NVidia GPUs, Jupyter, Anaconda, Tmux, Python, CUDA, cuDNN, NumPy, matplotlib, Keras, Theano, Tensorflow