FILIP BÁRTEK

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</> SKILLS

Advanced	*C++, Google Test, Git*
Intermediate	*Python, CMake, Qt, qmake, Java, Maven, TeamCity, Doxygen*
Elementary	*Unity, C#, Valgrind, SageMath, SVN, Vagrant, Ansible*

🏢 EMPLOYMENT

R&D Software Engineer, BTL Medical Technologies CZ
Development and maintenance of an ECG signal processing library
C++, Visual Studio

2017-11 — 2018-11
Prague, Czech Republic

- Supervision of builds for two target platforms
- Cooperation with a team based in India
- Technologies: C++, Google Test, CMake, g++, TeamCity, Visual Studio 2015, GitLab, Ubuntu, Windows, JIRA, Doxygen, qmake, Qt Creator, C#, Python

R&D Software Engineer, BTL India
Development of a medical device
C++, Qt 5.5, Linux

2016-09 — 2017-10
Bangalore, India

- Setup of cross-platform build system, automated tests, code quality metrics, performance measurements
- Technical job interviews
- Cooperation with a team based in Czech Republic
- Technologies: C++, Google Test, g++, Qt 5.5, qmake, QML, Qt Creator, GitLab, Ubuntu, JIRA, TeamCity, gcov, LCOV, SonarQube

Software developer, Hobrasoft
Development of applications for Windows and Android
Java, C++, Qt, Android

2015-10 — 2016-09
Rožnov pod Radhoštěm, Czech Republic

- Design and development of two applications that deal with digital signatures extensively
- Prototype of a Qt-based Android app
- Technologies: Java, iText, Maven, NetBeans, C++, Qt 4.8, Qt 5, QML, OpenSSL, Qt Creator, Git, Phabricator, Windows, Ubuntu, Android

Summer Student, CERN
Extension of Clang Static Analyzer with additonal checkers
C++, Clang Static Analyzer

2013-07 — 2013-09
Geneva, Switzerland

- Summer school combined with a practical project
- Technologies: C++, Clang Static Analyzer, Git, JIRA, Linux

Software Design Engineer, Honeywell
Development of a device that helps testing of aeroplanes
C++

2012-04 — 2012-09
Brno, Czech Republic

- Software development, code analysis, system verification planning, documentation, cooperation with a team in the United States
- Technologies: C++, Visual Studio 6, SVN, Serena Dimensions CM, Windows

🎓 EDUCATION

Master of Theoretical Computer Science, Charles University
- Master thesis: Minimum representations of Boolean functions defined by multiple intervals
- Main areas of interest: computational complexity, computationally hard problems, algorithms, artificial intelligence, robotics, computer game development, game studies

2012-09 — 2015-06
Prague, Czech Republic

Bachelor of Mathematical Informatics, Masaryk University
- Bachelor thesis: Rabin Games on Finite Graphs [in Czech]

2008-07 — 2012-01
Brno, Czech Republic

🏆 EXTRACURRICULAR

Participant, Global Game Jam 2019
Unity

2019-01
Prague, Czech Republic

Attendee, Game Developers Session
Video game development

2018-12
Prague, Czech Republic

Attendee, Agile Open Space
SCRUM

2017-11
Prague, Czech Republic

Student, Software Testing (online course)
Python, Test driven development, Random testing

2016-04

Expert in English, Duolingo English Test

2015-07

Participant, Ludum Dare 32
GameMaker: Studio

2015-04
Prague, Czech Republic

★ PROJECTS

Programmer, Ratata
A rhythm game for Windows
Unity, C#
- Collaboration of four creators of various backgrounds
- Created in 48 hours for Global Game Jam 2019

2019-01
Prague, Czech Republic

Creator, nbspacer
Replaces regular spaces in HTML documents with non-breaking spaces (` `) where appropriate
Python
- Conservative (VCS-friendly) - leaves the rest of the document intact
- Supports two languages: Czech and English
- Hobby project

2016-05 — 2016-06
Dolní Bečva, Czech Republic

Programmer, GeoSign
Assists Czech land surveyors in digitally signing documents and sending them to cadastre offices
C++, Qt 4.8
- Created for Hobrasoft

2015-10 — 2016-09
Rožnov pod Radhoštěm, Czech Republic

Creator, PDF Manipulation Utility
A command-line tool for manipulation with PDF documents
Java, iText, Maven
- Supported operations: inspection of properties, adding a digital signature, attaching a file
- Extensive project documentation
- Created for Hobrasoft

2015-10 — 2016-09
Rožnov pod Radhoštěm, Czech Republic

Creator, missls
Tactical nuclear warfare party minigame
GameMaker: Studio
- Originally created in 48 hours for the game jam Ludum Dare 32
- Placed in top 8 % in category Mood
- Interesting features: minimalistic design, vector graphics, 2D planetary physics

2015-04
Prague, Czech Republic

Creator, Static Analysis Suite
Extension of Clang Static Analyzer with a custom checker
Clang Static Analyzer
- Feasibility study of replacement of Coverity with Clang Static Analyser
- Focus on multithreading bugs
- Created for CERN (group: PH/SFT) as a part of Summer Student Programme

2013-07 — 2013-09
Geneva, Switzerland

Programmer, Magic Dance Dance Carpet
A magic carpet flight simulator
Unreal Development Kit
- Collaboration of five students of various backgrounds
- Interesting features: dance pad controls, concave world
- Created for the course Computer games development at Charles University

2012-11 — 2013-11
Prague, Czech Republic

↱ SAMPLES

path_finding
Visualization of A* search
SageMath

2015-01

Stable roommates problem solver
An exercise in constraint programming
Prolog, clpfd
- Report

2014-09

NokiaWebGL
Extracts a 3D map of a large region from a Nokia service
Python

2014-06

Stationary analysis of one channel queueing systems
A mathematical analysis of a class of queueing systems
Mathematical modeling, LaTeX, SageMath

2014-06

slnkcctr
slnkcctr [slinky conductor] is a music toy that helps slinky jugglers to extend their performance with music.
C++, OpenCV
- Report

2014-05

❞ TESTIMONIALS

Karthick N G (manager), BTL India

2018-10

It was wonderful working together with you when I was at BTL. I remember our elaborate discussions and your piercing technical questions!
Your analytical approach and dedication to work make you a great asset for any software team.

Nikhil Augustine (co-worker), BTL India

2018-11

I just wanted to say a big Thank you at this moment, You nay not have an idea of the amount you have influenced in my career. The working experience with you have made a big impact in the way how I approach the problems in our area of work.
I wish you all the best, Keep up the enthusiasm and dedication and keep inspiring others.