Martin Mihaylov

Computer Science Student

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EDUCATION

Technische Universität München, Munich, Germany
M.Sc. Computer Science 2018

University of Waterloo, Canada
Exchange Computer Science 2016

Technische Universität München, Munich, Germany
B.Sc. Computer Science 2016
Minor: Economics
Grade: 1.5

Sofia High School of Mathematics, Sofia, Bulgaria
High School - Focus on Mathematics & Informatics - 2012
GPA: 97%

EXPERIENCE

F&F Computer Anwendungen und Unternehmensberatung GmbH   Munich, Germany
Working Student - Software Developer   Aug 2014 - Current
- Evaluated JavaScript frameworks for hybrid mobile application development.
- Developed a multi-platform mobile application with Sencha Touch.
- Worked with Cordova & SQLite to make application specific data available for offline access.
- Developed a small prototype application for Android (Java, Android Studio)
- Designed and developed a hybrid mobile application in Ionic (AngularJS)
- Worked with Docker & Jenkins to set up automatic builds and deployment
- Key Languages & Technologies: **JavaScript, AngularJS, Ionic, Sencha Touch, jQuery, Cordova**

Technische Universität München   Munich, Germany
Student Assitant - IT System Administration   Jun 2013 - Mar 2014
- Maintained network of more than 100 PCs and a few servers at the chair for energy systems at my university.
- Key responsibilities: Support, Documentation, Selection & Installation of Hard- and Software

EXTRACURRICULAR

Cisco CCNA Exploration Course - Cisco Networking Academy, Sofia, Bulgaria   Apr 2010 - Jan 2011
- Comprehensive coverage of networking topics
- Hands-on practical experience
- Scored over 90% on all assessments

LANGUAGES

English · Full professional proficiency

German · Full professional proficiency

Bulgarian · Native language

SKILLS

General: Python, C, SQL, Haskell, Java
Web: ReactJS, AngularJS, JavaScript, HTML, CSS
Mobile: Swift, Ionic, Sencha Touch
Mockups / Design: Sketch App
Tools: JIRA, Confluence, Git, SVN, Docker
Backend: NodeJS, Express
Methodologies: Agile Development, Scrum, Continuous Integration, Continuous Delivery, Release Management
Deep Learning: CNNs, Caffe Framework

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PROJECTS

Real-Time Health Monitoring System

Participated in the development of a reliable real-time health monitoring & communication system targeting to help workers in hazardous environments. Our team of 11 developers, 1 project leader and a coach worked in close collaboration with medical specialists and an industrial partner T-Systems. As a Release Manager I was responsible for setting up automated builds in Bamboo for Continuous Integration as well as automatic deployment for Continuous Delivery. As a member of the Backend sub-team my tasks & responsibilities were:

- Coordination with the other sub-teams on designing the API
- Development with NodeJS and Express
- Designing MQTT Topic Structure and message payloads
- Setting up an MQTT Broker & Client for real-time communication
- Code Reviewing of Pull-Requests

Symbol Detection with Convolutional Neural Networks - Bachelor Thesis

The topic of my Bachelor's Thesis was research in the area of Deep Learning with Convolutional Neural Networks (CNNs) for symbol detection in the context of handwritten mathematical expressions. The work I did was based on recent advancements in CNNs for object detection to see how an end-to-end trainable system would compare to the previous approaches of handwritten mathematical expression recognition. A recently released public dataset of online mathematical expressions was used to generate images for training of the network. Experiments with different parameters and additional data generated through transformations were conducted. The results were compared to other systems and showed promising performance on the symbol recognition task.

Allianz Secure Home - iOS Application

Participated in the development of iOS Application for home security system with industrial partner Allianz. The system uses sensors installed in the users' home to detect unusual events and alert the user. The corresponding iPhone app makes it possible to see the status of the sensors and interact with certain smart components in the house. Being part of the Frontend team my tasks & responsibilities were:

- Mockups / **UI / UX**
- Development with **Xcode** and **Swift**
- Rest API Design in cooperation with Backend team
- Documentation in **Confluence**
- Task Management in **JIRA**
- Version Control with **Git**

PebbleTrek - Hack The North 2015, University of Waterloo

Participated in the Canada's Premier Hackathon - Hack The North. PebbleTrek is an application for the Pebble Watch that we have developed in just less than 36 hours with the aim of helping elderly people in critical situations. This was my first experience with Pebble development (and hackathons in general). I was able to grasp the concepts quickly, learn a lot of new things and contribute to the project in many ways. Since then I've started attending more hackathons across the world with the aim of meeting up with techie people and getting hands-on experience with countless of cool technologies.

- **Pebble SDK**
- **C** Development
- **JavaScript** Development

Reversi AI Player in Haskell

Together with a fellow student, we submitted Othello/Reversi AI Player for a 2-week challenge that was part of the Functional Programming coarse at University. The solution implements Negamax with alpha-beta prunning coupled with a few heuristics. The code is on Github. We ranked on 5th place out of 19 valid submissions and about 500 Students taking the course.

- **Artificial Intelligence**
- **Haskell** Development

Programming-BG.com

One of my first websites, which I developed during high school. Initially released in 2009, later redesigned with Bootstrap. The website hosts beginner tutorials mainly for the C++ programming language as I have written them while learning the language at school.

- Ranks on 1st place in Google when searching for C++ tutorials in bulgarian language
- 900+ fans on the Facebook page
- Used technologies: **PHP**, **HTML**, **CSS**, **Boostrap 3**

INTERESTS

Technology, AI, UI/UX, Photography, Cinematography, Reading, Biking