# Andrei-Mihai Nicolae

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## **Employment**

## **Software Developer**

## **New Verve Consulting**

November 2017 - Present

- Worked on designing and developing a greenfield plugin for the Jira Marketplace.
- Mainly worked on the backend of the application, written in Java, but was also involved on the frontend side of the app.
- Implemented efficient scripting solutions for clients in a timely fashion.
- Programming languages and technologies used were Java, Groovy, Velocity, Ajax, AWS, Jira Server and Jira Service Desk Plugins.

#### **Software Developer**

## KnowledgeBomb

October 2017 - Present

- Involved in the design, implementation and testing of a greenfield web app providing services for tutors in the LIK
- Created a REST API in Go capable of managing tens of thousands of concurrent users.
- Worked on the frontend of the application using Angular 5.
- Managed and instrumented the whole infrastructure of the application on AWS (EC2 + ELB, DynamoDB, S3, Cognito, ECS + ECR) and Firebase Auth using Terraform.
- Programming languages and technologies used were Go, AngularJS, Docker, AWS, Firebase and Terraform.

## **Software Developer Intern**

#### King

June - September 2017

- Worked in the Gifting team as a full-stack developer.
- Implemented new features and maintained the legacy project but also developed most of the backend for the new prototype that the team wanted to launch.
- Programming languages and technologies used are Java, SQL, AngularJS + TypeScript, Docker, Jenkins, Mockito.

#### **Junior Software Developer**

#### **Avarix**

January - April 2017

- Added features, solved bugs and maintained various financial trading platforms.
- Programming languages and technologies used were Scala, Akka, ConductR, ScalaTest, SQL.

#### **Computer Science Demonstrator**

#### **University of Glasgow**

**September 2016 - May 2017** 

- Explained and aided Computer Science basics and principles teaching to first year students as part of the Computer Science CS1PX and CS1CT courses.
- Programming languages used are Python and Alice.

## **Software Developer Intern**

### King

June - September 2016

- Worked in the Gifting team that developed and maintained the whole flow through which the team could send gifts concurrently to up to tens of millions of King games players throughout the world.
- Created a very large number of features that satisfied all usability and quality assurance tests, as well as solved
  a significant number of both critical bugs that were in the active sprints or less major ones situated in the
  backlog.
- Have been involved in all stages of software development: requirements gathering, documentation, design, implementation, testing and feedback.
- Programming languages and technologies used were Java (JSON-RPC), Mockito, SQL, Docker, AngularJS, TypeScript.

### **Summer Technology Analyst**

### **Morgan Stanley**

June - August 2015

- Worked on the Exception Management System, implementing the main component which parsed the message, cached necessary fields and ran checks to ensure data quality and completion, raising and storing exceptions where necessary.
- Created features for message communication between the UI and Middleware and synchronization among all tiers.

- Enhanced the DB with Stored Procedures and UDFs, improving stability and efficiency.
- Have been involved in all the Software Development lifecycle phases: requirements gathering and analysis, design, implementation, testing and feedback.
- Programming languages and technologies used were Java (Spring environment), C, C++, SQL and SOAP.

### **Software Developer**

## **Google Summer of Code**

May - August 2014

- Updated the CRAM code developed for the PR2 robot so the user can visualize the state belief of the robot and the surrounding environment using Rviz instead of OpenGL.
- Created C++ libraries to provide functionalities for the robot, such as computing distance to objects nearby or visualize different possible routes for accomplishing a goals and decide which one would be optimal.
- Programming languages used were Lisp, C++, Prolog.

### **Software Developer**

#### **DFKI GmbH**

**October 2013 - April 2014** 

- Main tasks involved image processing, arm manipulation and object grasping.
- Developed algorithms to enhance robot movements and detect objects in highly cluttered environments (my choices have improved the time efficiency with 50-60%)
- Programming languages used were C, C++ and Java.

#### **Education**

## Glasgow, United Kingdom

University of Glasgow

**September 2014 - June 2018** 

- MSci in Software Engineering.
- Grade: First (expected).

### Bremen, Germany

**Jacobs University Bremen** 

**September 2013 - June 2014** 

- BSc in Computer Science.
- Grade: 70% (obtained).

## **Technical Experience**

## **Projects**

- **DTSsistant** (2018 Present). Building a Google Assistant app for the inhabitans of my hometown, where people can get answers regarding whatever is happening around the city: events, art exhibitions, trivia about the city etc. The REST API server is completely built in Go and is hosted on Google App Engine, while the NLP, intent extraction and parsing is done through DialogFlow.
- **SyncTube** (2018 Present). Command line app that can sync the whole YouTube library of a user and download everything that was either liked or added to a playlist since the last synchronization. Whole tool is being built in Go.
- Go Ticket Guru (2017-2018). Built a tool for concurrently fetching, storing and analyzing software tickets from either Jira or Bugzilla. It can also automatically plot graphs after running the analysis, as well as perform different statistical tests on the data. The whole tool was built in Go using BoltDB as database provider.
- Palgo (2016). Electron app for visualizing and animating common algorithms such as Dijkstra's algorithm for finding the shortest path between two vertices in a graph.

## **Languages and Technologies**

- Java, Go, Python, JavaScript, C, Clojure (beginner), Haskell (beginner).
- Postgres, MySQL, MongoDB, Redis, Kafka, Elasticsearch, Docker, Spring, AngularJS, Electron, Amazon Web Services, Google Cloud Platform, Firebase, Terraform.