# Maks Drzezdzon

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#### **CAREER SUMMARY**

Full stack software engineer with 1 years of experience, recent graduate. Areas of expertise are Java, Python, data analytics and angular/react frontend. Planning on doing a part-time masters in software engineering.

Recreationally work on personal projects to bolster learning, study Polish and German as well as Rubik's cube algorithms, that I've simplified to 4 algorithms for teaching. I'm seeking full stack/data/IOS roles.

#### **EDUCATION**

# **Bachelor of Science in Software and Network Engineering**

08/2015 - 10/2019

Technological University Dublin - City campus (2:1)

# **QQI Level 5 in Programming Fundamentals in C#**

06/2013 - 09/2013

CCT College Dublin – while in secondary school (4<sup>th</sup> year summer)

#### SKILLS

**Programming**: Java, Python, Swift, C/++/#, JavaScript, TypeScript, PHP

Cloud and Databases: MySQL, MongoDB, PostgreSQL, SQLAlchemy, Node, Realm, Digital Ocean, Firebase

Other Technologies: Git, Junit4, XML, JSON, Flask, Android, TensorFlow, Keras, Angular, React

Languages: English (Fluent), Polish (Advanced), German (Basic)

#### WORK EXPERIENCE

# **General Motors -- Full Stack Software Engineer**

08/2019 - 11/2019

- Architected 2 spring micro-services used to relay product information, utilized and learned company API
- Initiated migration of simple corporate pages to Angular 2+, reported progress with daily stand ups

# Virgin Media -- Network Engineer Intern

06/2017 - 12/2017

- Collaborated to overhaul software used to generate configurations for switches and troubleshooting circuit paths
- Authorized with network access spanning over 100s of devices in Ireland, updated documentation
- Communicated issues to senior engineers such as replacement of equipment, evaluated 900+ circuit paths
- Worked on a cross functional team of 4, consisting of 2 senior network engineers and a software engineer

### PERSONAL AND UNIVERSITY PROJECTS

Online Book Retailer (Java, Spring, Angular, Swing, HTML5, CSS3, Bootstrap4, XML, PostgreSQL, MVC)

- Developed a rest spring boot backend with 4 microservices on digital ocean, tested with postman
- Designed a simple and clean angular front-end to present data, integrated external API for dummy data
- Revamped as desktop app following UI/UX best practices, negotiated with professor and 2 other students to facilitate moving forward with project mix up

IOS Development (Swift, SwiftUI, APIs, SwiftyJson, Alamofire Firebase, Python, Cocoapod, Core data)

- Integrated weather forecast API to create an app with adaptive UI vectors as background images
- Tailored 3 apps with SwiftUI such as HackerNews, To-Do and others with over 300 commits on GitHub
- Implemented 2 design patterns such as MVC, Observer and currently learning MVVM among others
- Trained several models, converted and utilized 3 pretrained AI models for image recognition app
- Composed a camera dictionary app for my grandparents, currently it's sufficient to help with shopping

Python Data Analysis (Python, TensorFlow, Kaggle, Google Dataset Search, Pandas, BeautifulSoup, Pickle)

- Analyzed dataset for user count for screen size averages, in-app purchases through command line tool
- Investigated correlation in data to gain insights on user engagement in the mobile gaming industry
- Created 2 classification models with TensorFlow, predicting student grades and Alzheimer brain scans
- Organized each dataset containing separating train and test data, both models performing at ~98.9%
- Examined datasets to gain data related skills web scraping with, data cleaning, pickling AI models

# SoundCloud Clone (PHP, HTML5, CSS3, Digital Ocean, MariaDB, Singleton pattern, Linux)

- Deployed and remotely configured a cloud server, setting up HTTPS, apache2, Nginx, SSH and ports
- Planed a database schema with MySQL workbench, implemented through a Linux terminal
- Implemented 4 intrusion prevention features against cross site scripting, SQL injection, SQL sanitization and parameterized queries with a connection manager class to reduce code overhead.

# **Lectured Python in Ardgillan-CC Secondary School** (Python, PyGame, Spyder)

- Arranged a weekly lesson in preparation for 3-month coding cert while studying fulltime
- Collaborated with colleague and guided 30 students for 7 months, teaching basic concepts with PyGame

# Server Log/Data Analysis Tool (Python, Pandas, PyQt5, Apache HTTP Server, python IPWHOIS)

- Learned Python, Pandas and PyQt5 to prototype a desktop application to parse apache logs
- Utilized Python data structures and a to extract relevant information from a sample of 2000 connections
- Drafted a report to present insights from data, such as ~50% traffic coming from Chinese offices
- Achieved by calculating connections per second from a set of Ip isolated using D&C methodology
- Presented visualization to mediate information to Cyber-sec professor from lab honey-pot logs

# **Arduino Bluetooth Car Bot** (ASM, C++, Java)

- Delivered a project on a tight work schedule (3 weeks) due to 8-week snow storm delaying parts
- Persuaded professor to start on the project and guided team members with resources to learn
- Co-ordinated a project from beginning to end, spearheaded project to completion after 3 members left
- Demonstrated knowledge of Bluetooth (BLE), Android, Debugging, embedded system programming

# **IOT Home Cloud Server** (C++, Node, JavaScript, HTML5, CSS3, MQTT protocol, Raspberry pi, Bootstrap4)

- Customized 6 Bluetooth services collecting microcontroller data, relaying it to a cloud pi server
- Presented data communication through a simple frontend developed with HTML5, CSS and bootstrap
- Integrated trigger messages that would start services and a button service alerting a door being opened