Flat # 4, Block 12-C, Federal Housing Flats, G-11/3, Islamabad, Pakistan

# Zaid Afzal

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### **EMPLOYMENT**

Python Django/Flask Developer & DevOps

**Engineer** Self-Employed (Remote Clients) March 2019 - Present

Producing maintainable, thoroughly-tested code, up-to-date with latest industry standards

- ≤ Back-End web development using Python Flask/Django using MySQL/PostgreSQL, MongoDB.
- API design, development & documentation via Flask micro services and Django REST Framework.
- Scrapping websites and web application for data mining purposes.
- Test-Driven development.
- Developing Front-End via HTML5, Bootstrap 4, JavaScript(ReactJS, VueJS)/jQuery.

#### Automotive Artificial Intelligence March 2018 - March 2019 Platform Apps Developer Virtual Simulation for Self Driving Vehicles (Python)

- Worked on virtual simulation's driving, map and traffic maintainer.
- Implemented Rule Catalog for German roads as a separate gRPC service.
- Reduced response time in each frame to compute vehicle perception and rules violation.
- Redesigned modules for simulation and introduced unit test cases for different services.

#### Software Engineer SlashNext Sep 2017 - Feb 2018

Network Security, Malware Analysis, Reverse Engineering (Python, Objective-C, Bash)

- Worked in cyber security team to transform malware researcher's expertise to machine learning/ deep learning models to filter and classify network packets (Benign/Malicious) on Access Point level.
- Created scripts to extract process level information to make important features to train on machine learning algorithms.
- Built and automated virtual machine for Mac OSX, Linux, Windows, Android OS to run and analyse latest malwares.

### Software Developer Intern

**Bentley Systems** 

June 2016 - Aug 2016

Xamarin.Forms, Scrum

■ Built working prototype to shift company's internal software system UI named DGnDB to Xamarin. Forms for cross platform support (Android, Windows, iOS).

### **EDUCATION**

# Islamabad, Pakistan

**FAST - NUCES** 

2013 - 2017

- B.S in Computer Science
- Coursework: Data Structures & Algorithms, Web Development, Network & Data Security, Data Mining & Machine Learning

# **CERTIFICATIONS**

### Coursera.org

SUNY - University of Buffalo Feb 2019 (In Progress)

- Blockchain (specialization)
- Blockchain Basics, Smart Contracts, Decentralized Applications (Dapps), Blockchain Platforms

### TECHNICAL EXPERIENCE

### **Projects**

■ Algorithmic Trading (Sep 2016 - May 2017): Final Year Project Developed intra-day web based trading platform using historical records of New York stock exchange and trained machine learning algorithms (Random Forest, SVM) to predict price movement for top 5 popular stocks. (Python, Django, AngularJS)

- TOR Implementation (Apr 2017 May 2017): Implemented 'The Onion Routing' protocol on distributed nodes with encrypted and layered communication. (Golang)
- **Messenger** (Nov 2015 Dec 2015) Developed a messenger combining functionality of multi-lingual auto translated chat, audio and video calling. (Java, JavaFX, JSP, JSF)
- **Pokemon** (Apr 2014 May 2014): Developed pokemon game in 2<sup>nd</sup> semester of undergrad degree utilizing basic OOP concepts. (C++, OpenGL)

# **Languages and Technologies**

- (Proficient) Python, Pandas, Flask, Django, C++, MySQL, MongoDB, Git, HMTL, CSS/Bootstrap, JavaScript, Linux(Ubuntu), Jira, PyCharm, Scrapy
- ≤ (Familiar) AngularJS, NodeJS, Bash, Golang, KnockoutJS, Docker, PostgreSQL