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# SARTHAK KHANNA

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#### **EDUCATION**

### MS in Computer Engineering (Computer Systems), Arizona State University

Jul 2016 - May 2018

**Coursework**: Algorithms, Artificial Intelligence, Database Management, Data Mining, Data Structures, Mobile Computing, Software Security, Statistical Machine Learning

## B. Tech in Electronics and Communications Engineering, VIT University (India)

Aug 2012 - May 2016

Head of Technology at Technology and Gaming Club

#### EXPERIENCE

### **Backend Software Engineer**

# SimpleCitizen, Salt Lake City, UT

Nov 2019 – Present

- Designed and created new software features for the single page application using Python3, Django, GraphQL, PostgreSQL and Rest API's.
- Modified existing database models to increase performance efficiency of CRUD processes that had complex cascading designs.
- Implemented Single Sign On and Multi-Factor authentication using SAML for the enterprise side of the application.

#### **Jr Python Developer**

## MarketDial, Salt Lake City, UT

Jan 2019 - Nov 2019

- Complete ownership of ETL workstreams; designed and developed complex data pipelines and maintained data quality
- Optimized existing ETL p rocesses and implemented a dynamic method of file selection for data loads.
- Developed and maintained Python scripts and SQL queries to load 'clean' data into a PostgreSQL DB.

#### **Teaching Assistant**

## **Trilogy Education Services, Charlotte, NC**

Nov 2018 - Jan 2019

- Assisted participants of the Data Analytics Bootcamp at UNC Charlotte with various technologies like Python, JavaScript, HTML/CSS, Machine Learning and many more.
- Supported the instructor of the ongoing class with content delivery and grading of homework and projects.
- Aided participants in reaching technical milestones thus inculcating a developer mindset in them.

# Software

## Developer(Part-time)

## Stealth Gaming, Vellore

May 2014 – May 2016

- Made the website and implemented a web-based user management system using HTML, CSS, and JavaScript.
- Maintained technical infrastructure and developed marketing solutions to increase revenue and customer loyalty.

#### SKILLS

- Languages: Python3, PostgresSQL, BigQuery, JavaScript, Kotlin, HTML5, CSS3,
- Web Technologies: Django, GraphQL, REST API's, Flask, Bootstrap, jQuery, JSON, MongoDB
- Frameworks/Libraries: PyTest, PyParse, scikit-learn, numpy, Pandas, matplotlib, faker
- Tools & OS: Git, Linux, Windows, Agile ( Scrum ), PyCharm, Google Cloud Services, AWS

## **PROJECTS**

## Airbnb New User Booking prediction:

(**Tools**: Python, scikit-learn, Numpy, Pandas, matplotlib)

- Created a classification model that predicted to which country a new user will make their first booking.
- Performed feature engineering and statistical analysis on the raw data, obtaining relevant insights.
- Programmed a blended ensemble of traditional classifiers (KNN, SVM, Logistic Regression) to enhance the performance of the model and compared this with traditional classifiers and XGBoost classifier.

## **Capture the Flag(CTF) Software Security Model:**

(Tools: Python; PHP; HTML5; JavaScript; MySQL)

- Built tools and scripts to prevent various cybersecurity attacks like Buffer overflow, Path, SQL injection and Format string for a capture the flag event competing against other teams.
- Implemented a model to find XSS vulnerabilities in a website and automated XSS attacks, SQL injections on the other teams.