Muhammad Yasoob Ullah Khalid

GitHub | Book | Blog | Personal Website

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EDUCATION

Colgate University, Hamilton, NY

B.A Computer Science, Class of 2021

Coursework: Comp Organization & Architecture, Discrete Structures, Operating Systems, Computer Networks, Graphics, Data Science, Mobile Development, Theory of Computing

SKILLS

Programming: C, Python, Golang, HTML, CSS (Proficient); JavaScript, Java, Ruby, C# (Working Knowledge)

Technologies: Git, Heroku, DigitalOcean, Travis, Machine Learning (scikit-learn & Keras), Android SDK, Unity3d, Docker

Languages: Urdu, Punjabi, Hindi (native); Saraiki, English (fluent); German, Arabic, Hungarian (Basic)

EXPERIENCE

Summer Intern

ASAPP, NYC, May 2019-Aug 2019

- Led the development of new features using Kafka, Redis and RabbitMQ via GoLang, Typescript and React
- > Sped up Golang legacy code with a factor of 20% and created monitoring dashboards in Datadog and Kibana

Summer Research

Networking Research Lab, Colgate University, May 2018-Aug 2018

- Got funding for personal research on using Wi-Fi and MAC addresses to track proximity between two devices
- Came up with a working algorithm using Scapy (Python) which exploited a bug in Linux Networking Stack

Research Assistant

HCI Lab, Colgate University, Sept 2017-Feb 2018

- Developing concussion management app allowing users to record concussion data & track progress over time
- Used Python (Flask) to develop the online API and Ionic Framework to develop the cross-platform mobile app

Book Author

Intermediate Python Book, 2015-2017

- Self-published English version read by 3 Million+ people in 186+ countries; translated into Chinese, Russian, Portuguese, Korean; Turkish translation is in progress
- Used at McGill, UC Berkeley (among others) as supplementary material

Freelance Full Stack Software Developer

Fibre Craft Industries, 2015-2016

- Designed company website using Django, deployed it on Digital Ocean and Applied User Centered Design methodology while developing the CMS catered to non-technical users
- Used A/B testing and the performance of specific keywords to guide the initial Facebook and Google advertising strategy to maximize traffic

PROJECTS

Automated Alzheimer's Detection (2016)

Independent research project to predict onset of Alzheimer's by training ML algorithms on the online OasisBrain dataset; achieved accuracy of 88% by developing an ensemble of SVM and ANNs by using keras and scikit-learn

Python Tips Blog & Newsletter (2013-Present)

Followed by people from MIT, UPenn, Intel, Cisco & UK Customs (among others) & referenced in classes at CMU, Berkeley, UC Santa Barbara, UArk; read by more than 4 Million people in 185+ countries

Tube Downloader (2016-2017)

• Developed an Android app using Java which was used by 400,000+ people for downloading music and videos from websites which handled up to 100 requests per second using the Python based web API on Heroku

ACHIEVEMENTS

<Colgate Coders> (2017-Present)

Created a programming club at Colgate; brought in people from Microsoft, Amazon, Google and other companies to lead tech talks and workshops; sent teams to different hackathons; currently planning to organize Colgate's first hackathon

Google Code-in Finalist (2016)

Completed 55+ tasks using Python, Go, Java, C in a month, named the first ever finalist from Pakistan

Winner Softec (2016)

- Won the biggest collegiate programming competition in Pakistan as the only High School team at the competition
- Won \$500 dollars by developing an eCommerce website using Django & Oscar