

# Muhammad Yasooob 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