# Suba Sah

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## **EDUCATION**

## The University of Toledo

Toledo, OH

Master in Computer Science and Engineering, GPA: 4.0

Jan 2020 - Nov 2021

## Institute of Engineering, Central Campus, Pulchowk

Kathmandu, Nepal

Bachelor in Computer Engineering, GPA: 3.5

Oct 2011 - Dec 2015

## TECHNICAL SKILLS

Programming Languages: Python, PHP, JavaScript, SQL, GraphQL, Java, C#, C++

Databases: MySQL, MS-SQL, PostgreSQL, Redis, MongoDB

Frameworks and Libraries: Django, Laravel, React, Redux, TypeScript, OpenAIGym, RLlib

Tools: Node.js, Docker, Kubernetes, AWS, CI/CD (Jenkins, CircleCI), Git, Webpack, Linux, Redux, Bash

E2E Testing: Pytest, PHPunit, React Testing library, Selenium, Gherkins, Cucumber

## EXPERIENCE

# University of Toledo

Apr 2020 - Present

Graduate Research Assistant

Toledo, OH

- Research in dispatching strategy and optimization used for Integrated Energy System (IES) using Deep Reinforcement Learning
- Deployed python simulation into <u>RAVEN</u>, an open-source framework developed by Idaho National Laboratory
- Collaborated in developing open-source Python based APIs and React based frontend for Volttron

#### Monotype Imaging Holdings Inc. (UBA Solutions)

Jan 2019 – Dec 2019

Senior Software Developer

Kathmandu, Nepal (Boston, HQ)

- Architected AWS flow for 5+ microservices and websites within company's product
- Developed 4 dockerized microservices and 4 microsites with Python, Express, React, and deployed to AWS
- Docker containers improved website performance and reliability by more than 50% in average
- Wrote code adhering to OOD, SOLID principles and various design patterns

#### Global Digital, Nepal

Nov 2016 - Dec 2018

Software Developer

Kathmandu, Nepal (Oslo, HQ)

- Rebuilt legacy monolithic software to scalable microservice architecture that improved maintainability by 80%
- Developed REST API for magazine subscription management system using Django, Express, and PHP
- Implemented different payment gateways (Stripe, PayPal, and Mastercard) using React
- Enabled 100K+ customers to publish/pay and advertise their service

## Publications/Projects

## The University of Toledo

Apr 2020 – Aug 2020

Reinforcement Learning, Deep Reinforcement learning

- A Transactive Energy Framework for Hydrogen Production with Economically Viable Nuclear Power
- Submitted to IEEE PES T and D conference at August 15
- This work is in collaboration of Idaho National Lab (INL), Idaho

## Live Movie Search

Jan 2019 - Feb 2019

View Project

JavaScript, React, Redux, Thunk, Git, Git Flow

- Integration of IMDb API for listing movie details
- Thunk-redux middleware for asynchronous API call

## AWARDS

- Academic Excellence Award, Institute of Engineering
- Tuition Fee Waiver Award, The University of Toledo