

Vinay Gopalan

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SKILLS

LANGUAGES

Python, JavaScript, C, C++, C#, SQL, SML, HTML, CSS

TECHNOLOGIES/Frameworks

Django, PyTorch, NumPy, SciPy, ReactJS, Unity, AngularJS

COURSEWORK

Algorithms & Data Structures, Computer Systems, Deep Learning, Functional Programming, Computability & Complexity, Cryptography, Discrete Mathematics, Linear Algebra, and Vector Calculus

EXPERIENCE

SOFTWARE ENGINEERING INTERN | INSTRUMENT LLC | Portland, Oregon | Summer 2019

- Worked on a full-stack application for a VC firm using Django along with the Wagtail CMS
- Obtained and utilized data from the firm's API and ported the data to the CMS
- Completed front-end tasks that utilized back-end data, while using CSS and JS to provide desired functionalities specified by design templates

SOFTWARE ENGINEERING INTERN | SCANTA INC. | Gurgaon, India | Summer 2018

- Designed AI for a third-person-shooting game by building NavMeshAgents in C#
- Employed a shortest distance algorithm that increased the game's runtime efficiency by 80%
- Improved the UI of an augmented reality app PikaMoji built in Unity which increased AppStore downloads

FREELANCE DEVELOPER | PAPIER PANACHE | New Delhi, India | January–April 2017

- Built a web application using AngularJS for a commercial startup
- Employed a content delivery network to reduce server load for images
- Helped increase company sales by 11%

UNDERGRADUATE RESEARCHER | CSMM INSTITUTE | New Delhi, India | March–July 2016

- Built models studying the mathematical correlation between different genres of music using Random Matrix Theory
- Designed accompanying backend and software to compute and export an ensemble of cross-correlation matrices

PROJECTS

SENIOR YEAR THESIS | NLP/SENTIMENT ANALYSIS | Adviser: Mark Hopkins | Aug '19–May '20

Built a neural network by fine-tuning the BERT model in order to run sentiment analysis on code-mixed tweets. The model placed 4th in the international NLP conference SemEval 2020

BRANCH.IO | CHAT APPLICATION | June '20

Created a Python web application using Django on a multi-threaded server using web sockets that enables users to branch to fresh conversation topics

EDUCATION

REED COLLEGE | BA IN COMPUTER SCIENCE

May 2020 | Portland, OR