

# SHUBHANG DESAI

<https://linkedin.com/in/ShubhangD> • <https://shubhangdesai.github.io> • [shubhang@stanford.edu](mailto:shubhang@stanford.edu)

## EDUCATION

**B.S. in Computer Science – Stanford University**, *Expected Graduation June 2020*

- Featured Coursework: ML (CS 229), Convolutional Neural Networks (CS 231n), NLP (CS 124), Computer Vision (CS 131)
- GPA: 3.9/4.0

**Anticipated M.S. in Computer Science – Stanford University**, *Expected Graduation June 2021*

## SKILLS

**Languages:** Python, C/C++, Swift, JavaScript, Java; **Machine Learning:** PyTorch, Keras, TensorFlow, NumPy, Pandas, OpenCV  
**Web Dev:** ExpressJS, AngularJS, Node.js, jQuery, HTML/CSS; **Mobile:** Android SDK, iOS/Swift; **Databases:** MongoDB, MySQL, Postgres

## INDUSTRY EXPERIENCE

**Machine Learning Intern – Microsoft**, *Summer 2019*

- Spearheaded the development of Microsoft's new cutting-edge Deep Learning-based handwriting recognition effort
- Experimented with input features, model architectures, and schedules to reach recognition **state-of-the-art result** set by Google

**Research Intern – Salesforce Research**, *Spring 2019*

- Worked with Salesforce Research time on a project which involved predicting diagnoses in pathological slides using AI
- Ran experiments on full-slide pathology data and iterated based off of experimental results; *manuscript in progress*

**Machine Learning Intern – PayPal**, *Summer 2018*

- Tested state-of-the-art NLP models in production-ready environments using GPU-optimized TensorFlow
- Developed deep learning framework in Python that will be used to develop, test, and deploy models across the org

**Deep Learning Educator – deeplearning.ai**, *Summer 2018*

- Work with Dr. Andrew Ng to help democratize AI education, create educational content on higher-level Deep Learning topics

**Machine Learning Intern – NASDAQ**, *Summer 2017*

- Designed and developed architecture of neural model for market prediction, authored internal whitepaper on the project

**Research Fellow – IDEO CoLab**, *January 2017*

- Technical lead of team tasked with designing solutions using Blockchain, prototyped three business models in nine days

## ACADEMIC EXPERIENCE

**Research Assistant – Stanford Vision & Learning Lab (SVL)**, *Winter 2019–Current*

- Worked on project relating to GANs and am working on building new dataset, under guidance of PhD student Ranjay Krishna

**Research Assistant – Stanford Artificial Intelligence Lab (SAIL)**, *Fall 2017–Spring 2018*

- Lead project in Dr. Andrew Ng's lab to detect deep vein thrombosis (DVT) in ultrasound images using Deep Learning

**Teaching Assistant – Stanford University**, *Spring 2017–Fall 2018*

- Computer Vision (CS 131)**, develop material on Deep Learning and Computer Vision, guide students through assignments
- Deep Learning (CS 230)**, Lead weekly review section of lectures, create lab activities for student group
- AI + Social Good (CS 21si)**, Founded and co-taught class on applying AI to social issues, created material on neural networks

## PROJECTS

**Arbitrary Neural Style Transfer** - Novel CNN architecture that can instantly transfer the style of any painting onto a picture

**Lung Cancer Detection** - Developed convolutional neural network pipeline to segment lung nodules and detect cancer in CT scans

## LEADERSHIP

**Vice President – Stanford Artificial Intelligence Group (SAIG)**, *2017-2018*

- Oversee SAIG Tech Ed officers, organize speakers and hackathons, mentor AI project teams, plan and teach AI workshops

**Teaching Team Member – CS + Social Good Studio (CS 51)**, *2017-2018*

- Created teaching content and structure as part of Curriculum team, taught Design Thinking methods in class

## WRITINGS

**Article on style transfer** for "Artists & Machine Intelligence" blog, was #1 hit on Google for "neural style transfer": [tinyurl.com/ami-nst](https://tinyurl.com/ami-nst)

**Article on basics of neural networks** for "Towards Data Science" blog: [tinyurl.com/tds-NNs](https://tinyurl.com/tds-NNs)

**Personal blog** where I wrote blog series & code tutorials on deep learning: [shubhangdesai.github.io/blog](https://shubhangdesai.github.io/blog)