# Chintak Sheth

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# **Objective**

Seeking a full time software engineering role at the intersection of machine learning and large scale systems. Leverage strong algorithms and math fundamentals to solve real world problems.

## Education\_

#### State University of New York - Stony Brook, USA | M.S. IN COMPUTER SCIENCE

Aug. 2016 - Exp. Dec. 2017

- GPA: 3.97/4.0
- · Concentration: Large scale machine learning systems
- Courses: Analysis of Algorithms (548), Parallel Programming (613), Compiler Design (504), Machine Learning (513 Top 3/100), Prob & Stats (544), Artificial Intelligence (537), Computational Geometry (555)

#### BITS - Pilani University, India | B.E. (Hons.) Electrical and Electronics Engineering

Aug. 2010 - Jul. 2014

- GPA: 7.94/10.0
- Thesis Advisor: Prof. Venkatesh Babu, Indian Institute of Sciences, Bangalore

### Skills.

Programming 4+ years: C/C++, Python, MATLAB; 2 years: Cython, PHP/Hack, Javascript

Technologies 2+ years: MySQL, Redis, AWS (EC2, S3, SQS); 1 year: Docker, jQuery, Flex, Bison.

# Work Experience\_

Facebook Inc., Menlo Park, USA | SOFTWARE ENGINEER INTERN

Jun. 2017 - Aug. 2017

- Worked on the Tupperware scheduler team Fb's internal containerized deployment solution.
- · Improved the montinoring ability of the deployed jobs for our users, almost all of Facebook by revamping the UI and redesigning the alert manager.
- Participated in the design of the alert manager by interacting with various teams, understanding their core requirements and implementing a small
  set of alerts for supporting the requirements. Additionally, per user request prototyped a solution to easily expose the internal metrics to our users.
- Technologies used PHP/Hack, C++-14.

#### Arya.ai, Mumbai, India | Software Engineer

Nov. 2015 - Jul. 2016

- Developed key solutions for two of our clients: document parser Societe Generale (French bank) and cheque processing Axis Bank (Indian).
- Helped improve cheque clearing efficiency of Axis Bank by 35% by automatically detecting account numbers, cheque amount and verifying signatures.

#### LensBricks Inc., Bangalore, India | SOFTWARE ENGINEER

Jul. 2014 - Oct. 2015

- Spearheaded the machine learning effort for curating interesting moments between parents and children in a home.
- · Aquired by Flextronics in 2016; primarily for the algorithms developed for household interaction analysis.
- Technologies used C++, Python, HTML, PHP, Javascript.

# Projects.

• YouTube-8M Video Understanding Challenge | Kaggle Competition

Spring 2017

Team SBU. Ranked 152/656 teams in the Kaggle competition hosted by Google. Our solution was based on Mixture of Experts model with video level features generated via Eigen pooling on frame level features.

• E-- compiler - CSE 504 (Compiler Design) | Course Project

Fall 2016

Built a compiler for a non-OO language in C++. Developed all phases - lexical analyser, parsing, abstract syntax tree construction, type checking, memory allocation and intermediate code generation and minor optimisation (register allocation using live variable analysis).

 Policy Gradients for playing Pong - CSE 537 (Artificial Intelligence) | Course Project Used Policy Gradients method in Reinforcement Learning to play ATARI's Pong game.

Fall 2016

• Super Pixel Clustering via Kernel Density Estimation, IISc, Bangalore | RESEARCH PROJECT

Jan. - May 2014

Formulated a better technique based on kernel density estimation for image segmentation via super pixel clustering. Establishes a tighter bound on the color variance in the output segment. Published in ICVGIP 2014. http://doi.acm.org/10.1145/2683483.2683557.

• Object Saliency using a Background Prior, IISc, Bangalore | Research Project

Jan. - May 2014

Developed an algorithm for assigning uniform object-wide saliency values instead of assigning saliency proportional to the contrast, as prevalent in existing literature. Published in ICASSP 2016. http://dx.doi.org/10.1109/ICASSP.2016.7472013

• Image inpainting, scikit-image | Summer Project

June - Aug. 2013

Selected for Google Summer of Code 2013. Implemented 3 image inpainting algorithms in Cython and Python using NumPy, SciPy and Matplotlib.

### Extracurricular Activities

Centre for Technical Education, BITS Pilani | Co-FOUNDER & STUDENT CO-ORDINATOR

Nov. 2012 - Jun. 2013

- · Spearheaded the initiative to conduct various beyond-the-scope courses on various application areas computer vision, C# for a nominal fee.
- Negotiated terms with our campus Director and Head of CS Dept., and recruited students for teaching and co-managing the initiative.
- Generated ₹120k in revenue. Organized various hackathons and funded several student technical projects on campus.