

# PRANSHU GUPTA

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Atlanta, Georgia

## EDUCATION

**GEORGIA INSTITUTE OF TECHNOLOGY** *Atlanta, Georgia*

MSCS, Machine Learning, Dec 2020

**INDIAN INSTITUTE OF TECHNOLOGY** *Kanpur, India*

B.Tech. Computer Science and Engineering, May 2017

## SKILLS

### Languages

*Proficient* - C#, Python, C/C++, HTML, CSS, JavaScript, SQL  
*Familiar* - TypeScript, PHP, Java

### Machine Learning

PyTorch, ScikitLearn, OpenCV

### Cloud

Microsoft Azure, Function Apps, Logic Apps, Service Bus, Cognitive APIs, Key Vault, App Service

### Web Dev

Django, Angular, NodeJS

## INSTRUCTOR

### INTRODUCTION TO WEB DEVELOPMENT

Association for Computing Activities, IITK, May 2017

**Trained 40 Students** (20 days)

## HACKATHON

DigiPrint, **2<sup>nd</sup> place among Microsoft Campus Hires** 2017

## COURSES

Machine Learning, Deep Learning, Reinforcement Learning, Computer Graphics, Computer Vision, Computational Photography, Compiler Design, Databases, Operating Systems, Systems Security

## PROFESSIONAL EXPERIENCE

Graduate Research Assistant \_\_\_\_\_

**SOCWEB LAB**, Georgia Tech / August 2019 – Present

Building statistical and machine learning models for **the Tesseract project**.

- Utilizing multimodal data streams with social media to predict and characterize attributes of physical and mental well-being of individuals.
- Ongoing work on investigating Hawthorne Effect in online activity.

Software Development Engineer \_\_\_\_\_

**MICROSOFT**, India / June 2017 – August 2019

Integral role in designing and developing modules for a Customer Data Enrichment Service, which serves the marketing personnel of Microsoft and helps them create better sales opportunities that generate higher revenue.

- Designed and implemented a fault-tolerant, serverless data flow orchestration layer using Azure Function apps. This delivered a **3x performance improvement & an operational cost reduction of 90%**.
- Developed features for the front end of the Customer Data Enrichment Service. Optimized bulk file upload component of the app to **improve performance by 40x**.
- Contributed to Microsoft VS Code** on GitHub, to help enable strict null check tests across the codebase.
- Responsible for end to end ownership of user stories including Development, Unit Testing, Functional Testing, Accessibility Testing, Security and CI/CD.

Software Development Intern \_\_\_\_\_

**MICROSOFT**, India / May 2016 – June 2016

- Implemented an AI powered chat bot using Microsoft Bot Framework and Azure Cognitive APIs, allowing users to interact with Dynamics365 in natural language.
- This reduced the clicks required for certain workflows by 50%.**

Software Development Intern \_\_\_\_\_

**GREENDZINE TECHNOLOGIES**, India / May 2015 – July 2015

- Implemented an algorithm to optimize order picking process at e-commerce distribution centers by computing an optimal path for the order picking vehicle, thus, **reducing the manual effort by 20%**.
- Headed the design and development of the organization's website**, customer and data management portals.

## PROJECTS

**Content Aware Image Completion**, Prof. Vinay P. Namboodiri | IITK

- Image inpainting by computing statistics of patch offsets and using nearest neighbor fields and energy optimization by graph cuts.
- Can fill regions which are **up to 20% in size** of the actual image.

**PyCS: A Compiler for C# in Python**, Prof. Subhajit Roy | IITK

- A compiler built in Python to translate C# code into Intel x86.
- Supports **70% of ANTLR's C# grammar** specification

**Renju: A board game in Python**, Programming Club | IITK

- Implemented an AI player for the Japanese board game Renju, using Minimax and  $\alpha - \beta$  pruning algorithms.
- Achieved a **winning rate of 80% against humans**