PRANSHU GUPTA

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Atlanta, Georgia

EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY *Atlanta, Georgia*

MSCS, Machine Learning, May 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, **2nd 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 Tesserae 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%.**
- Responsible for end to end ownership of user stories including Development, Unit Testing, Functional Testing, Accessibility Testing, Security and CI/CD.
- **Contributed to Microsoft VS Code** on GitHub, to help enable strict null check tests across the codebase.

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

Deep Image Captioning, Prof. Dhruv Batra | Georgia Tech

- Deep reinforcement learning-based image captioning with embedding reward by modelling the task as a decision-making problem.

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 Renju, using Minimax and $\alpha - \beta$ pruning algorithms, achieving a **winning rate of 80% against humans**