

Puneet Sachdeva

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Education

2016 - 2020 **B.S. IN COMPUTER SCIENCE** Washington University in St. Louis - 3.80 GPA

Work Experience

June 2018 - **TRIPADVISOR: CORE EXPERIENCE** Full Stack Software Engineering Intern

- Nov 2018 ✦ Composed core front end functions for the TripAdvisor social platform using ReactJS to improve the user experience.
- ✦ Upgraded TripAdvisor microservices by writing optimized GraphQL scripts to revamp the social service backend.
- ✦ Initiated a monitoring and alerting dashboard using Prometheus/Grafana which currently tracks all GraphQL services accessed by TripAdvisor and is used to troubleshoot system crashes.

May 2017 - **WASHINGTON UNIVERSITY IN ST. LOUIS** Android Course Developer

- Aug 2017 ✦ Partnered with Professor Doug Shook to create an Android App Development course to be offered to students, helping to provide Mobile App Development to everyone in the Computer Science department.
- ✦ Published examples, assignments, and prototypes to teach different Android Development concepts.

June 2016 - **COMPGEOM INC.- U.S. AIR FORCE** Software Engineering Intern

- Aug 2016 ✦ Integrated a new, more efficient design for a motor controller in robots used for geographic data collection.
- ✦ Formulated, in Python, a library that utilized a high-precision GPS to track and plot robot exploration which is now used by the US Air Force for research expeditions.

Selected Projects

April 2018 - **SENTIMENT ANALYSIS OF AMAZON REVIEWS** Apache Spark, Apache Hive, Amazon Elastic MapReduce

- May 2018 ✦ Generated a large scale sentiment analysis program to predict ratings of Amazon reviews based on consumer feedback.
- ✦ Integrated Spark for pre-processing, Hive for analysis, and hosted the job on Amazon EMR for over 80 million reviews.

Nov 2017 - **IOS AUGMENTED REALITY MAZE** Swift 3, UIKit, SpriteKit, ARKit, SceneKit

- Dec 2017 ✦ Applied a maze generation algorithm to create an Augmented Reality iOS game where a user can navigate through a maze in a timed session.
- ✦ The player can generate mazes of varying sizes depending on difficulty and place markings to complete the game.

July 2017 - **STS TRAINING APP** ReactJS, Node.js/ExpressJS, PostgreSQL

- Aug 2017 ✦ Developed a web application to train technicians at Student Technology Services in the annual training program.
- ✦ The administrative staff at STS can track the progress of all 80+ student employees as they complete benchmark tests regarding technical support material.

Teaching

Dec 2018 - **INSTRUCTOR - PROGRAMMING FOR TECHNICAL INTERVIEWS**

- Present ✦ Facilitate the growth of a new university seminar (currently over 80 students) aimed at preparation for coding interviews.
- ✦ Enhance course content and deliver lectures to instruct students in data structures and algorithms, utilizing pair programming and on the spot code review.

Oct 2017 - **HEAD TEACHING ASSISTANT - DATA STRUCTURES AND ALGORITHMS**

- Present ✦ Manage over 70 student TAs, host office hours, and instruct students in core computer science theory and principles by leading a recitation for over 150 students.
- ✦ Spearheaded the improvement of the course content by creating more resources for TAs/students and developing new lab assignments that allowed the class to double in size to 400+ students.

Software Skills

PROGRAMMING LANGUAGES: JavaScript, PHP, Java, Python, Swift, C++

DATABASES: MySQL, MongoDB, PostgreSQL, SQLite

WEB DEVELOPMENT: HTML, CSS, ReactJS, GraphQL, ExpressJS, Socket.IO, PHP Laravel, jQuery

OPERATING SYSTEMS/DEPLOYMENT: Node.js, Linux/Unix, LAMP (Apache), AWS (EC2), Heroku, Android Studio

DATA FRAMEWORKS: Apache Spark, Hadoop MapReduce, Apache Hive, Prometheus