

# Aroon Chande

Seattle, WA

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## Summary

- Experience Over 5 years of industry experience delivering turn-key bioinformatics and software solutions
- Client focus Customized existing software tools and analysis platforms to keep costs down
- Productivity Authored or contributed to 18 peer-reviewed scientific publications and 2 patents in 8 years
- COVID-19 Georgia Tech asymptomatic COVID-19 testing system

## Experience

### COVID-19 pandemic response projects, Georgia Institute of Technology.

- o Lead developer and social media manager for the nationally recognized COVID-19 Event Risk Assessment Planning Tool: <https://covid19risk.biosci.gatech.edu/>
  - Served over 3 million users and 15 million COVID-19 risk predictions
  - Received national press-coverage in Scientific American, Politico, Bloomberg, and elsewhere
- o Developer of the user-portal for asymptomatic COVID-19 testing system: <https://mytest.gatech.edu/>
  - Tested over 30,000 samples from faculty, students, and staff

### Seattle Genetics, Seattle, WA, Software Developer II. 2020

- o Created a R Shiny-based analysis and visualization platform for cancer RNA-seq data to empower bench scientists to generate and test hypotheses
  - Facilitated analysis of >20,000 harmonized patient-derived tumor RNA-seq samples
  - Supports machine learning-based clustering approaches and differential gene expression analysis
- o Developed and applied single-sample gene set enrichment techniques

### Applied Bioinformatics Laboratory, Atlanta, GA, Bioinformatics Scientist. 2016-2020

- o Partnered with government and industry leaders to deliver client-focused solutions
- o Project lead and software developer for global pathogen surveillance software in collaboration with the Centers for Disease Control and Prevention, shortening turn around time from  $\geq 1$  day to  $\leq 60$  seconds and decreasing computational costs by  $>1000\times$
- o Developed algorithms and platforms to simplify analysis of next-generation sequencing data

### Georgia Institute of Technology, Atlanta, GA, Graduate student. Jordan Lab

- o Developed models for disease burden in Colombia and South America, focused on complex diseases such as type 2 diabetes and coronary artery disease.
- o Redesigned and taught two of the capstone classes for the Bioinformatics Master's Program
- o Trained and mentored multiple Master's and PhD students

## Skills

- Languages Bash, **Git**, **Python**, **R**, Shell, Perl, PHP, **SQL**, Unix systems administration
  - o Full-stack development: Python with Flask/Django and R with Shiny
  - o Data ETL and analysis pipelines in Python and R for use in machine learning and scientific research
  - o Server administration and orchestration with Docker/Kubernetes, Ansible and Terraform
- NGS Whole Genome Sequencing (WGS), Whole Exome Sequences (WES), RNA-seq, microarray
- Wet-lab Tissue culture, confocal and electron microscopy, select pathogens/BSL3, protein purification and crystallography, ELISA and other immunoassays

## Education

### Georgia Institute of Technology, Atlanta, GA.

#### Ph.D. Bioinformatics (2020), M.S. Bioinformatics (2016)

Awards: Visiting Scientist Fellowship, São Paulo Research Foundation. Graduate Research Award (2016-2020)

### University of Iowa, Iowa City, IA.

B.S. Microbiology (2015). B.S. Biology (2013)