Rohit **Batra**

Software Engineer

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Coursework

- CS 2102 - Discrete Mathematics
- CS 2501 - Software Development Essentials
- CS 2501 - Computer Organization & Architecture
- CS 2501 - Data Structures & Algorithms
- CS 3102 - Theory of Computation
- CS 3710 - Intro to Cybersecurity
- CS 4720 - Mobile App Development
- CS 4740 - Cloud Computing

- APMA 3080* - Linear Algebra
- MATH 3100 - Probability

* denotes ongoing course

Activities

- ACM
- HackCville
- Computer & Network Security Club

Honors

- National Merit Scholar

Skills

- Languages - C | C++ | Java | Python | Swift | CSS | HTML | JavaScript | SQL | LaTeX
- Tools - Git | Jupyter | NumPy | SciPy | Dask

Education

University of Virginia

Charlottesville, VA

B.S. in Computer Science — *(Expected) May 2022*

- Honors: Dean's list

Experience

Arcturus Technologies

Leesburg, VA

Software Engineer Intern — *June 2020 - August 2020*

- Developed shell script to manage initiation & shutdown of Applicare agent upon startup/shutdown of monitored servers
- Implemented resource compression & minification for Applicare monitoring console to reduce transfer size by 72% & improve load times by 43%
- Stack: Bash, Java, JavaScript, Apache Tomcat

Janelia Research Campus

Ashburn, VA

Software Engineer Intern — *June 2019 - August 2019*

- Developed 13 unique object masks for 3D cell volumes
- Utilized scikit-image & SciPy image processing with Dask parallelism to process larger than memory datasets
- Directly contributed to more efficient machine learning pipeline by reducing training time
- Stack: Python, NumPy, Dask, scikit-image, SciPy

Janelia Research Campus

Ashburn, VA

Data Processing Intern — *June 2018 - August 2018*

- Generated & prepared ground truth data for machine learning
- Proofread machine learning predictions & implemented corrections
- Project will automate organelle segmentation & allow for data mining of large 3D cell volumes

Projects

ImageFinder for Safari

Individual Project

- Developed a macOS application which adds reverse image search to Safari as context menu options
- Published on the Mac App Store: 3500+ downloads
- Stack: Swift, JavaScript

NCAA Tournament Simulator

Individual Project

- Developed an NCAA tournament simulator
- 3 unique simulation strategies based on ELO ratings
- Stack: Java, JSON

Machine Learning Research

Group Research

- Conducted research concerning the performance of different machine learning algorithms with respect to task efficiency & accuracy
- 3 algorithms compared across 3 unique tasks
- Gathered statistically significant results regarding situational performance of different algorithms