

HAORAN “HENRY” ZHU

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Professional Summary

Incoming Computer Science (MS) student at Columbia University. Computer Science (BS) and Mathematics (BA) graduate from University of Virginia. Interested in machine learning, artificial intelligence and theoretical computer science. Research assistant under supervision of Dr. Haiying Shen at UVA. Well-organized, hard-working and collaborative team player with strong communication and analytical abilities.

Education

Starting from 08/2020 Columbia University – New York, NY Current Cumulative GPA: N.A./4.0

Master of Science: Computer Science

- **Major GPA:** N.A./4.0

08/2017 – 05/2020 University of Virginia - Charlottesville, VA Cumulative GPA: 3.972/4.0

Bachelor of Science: Computer Science

- **Major GPA:** 4.0/4.0
- **Relevant Coursework:** Theory of Computation; Digital Logic Design; Algorithm Analysis; Computer Architecture; Operating Systems; Computer Vision; Information Retrieval; Machine Learning; Internet Scale Applications

Bachelor of Arts: Mathematics

- **Major GPA:** 4.0/4.0
- **Relevant Coursework:** Advanced Linear Algebra; Probability and Stochastic Process; Ordinary Differential Equations; Real Analysis; Complex Analysis; Abstract Algebra; Discrete Math

Work History

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- **Research Assistant in Pervasive Communication Lab at UVA**, 01/2019 – present
 - Edit Hadoop source code to implement a load rebalancing algorithm for distributed file systems
 - Design deep neural networks for indoor setting control system in smart buildings
 - Develop a traffic context independent deep driving maneuver classification framework
 - **Software Engineer Intern**, 05/2018 - 08/2018
 - **Neusoft Corporation** – Shenyang, Liaoning Province, China
 - Responsible for the data migration between databases with the usage of Kettle
 - Write batch scripts to test Kettle jobs under Windows
 - Introduce new ideas to development team's front-end web development program

Skills

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|---------------------------|------------------------------|
| • Python/Java proficiency | • Full-stack web development |
| • C/C++/C# experience | • Algorithm Analysis |
| • SQL and database system | • Machine Learning |

Awards and Honors

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- Department of Computer Science Academic Excellence Fellowship at University of Virginia
 - Graduation with highest distinction from University of Virginia
 - Fall 2017 – Spring 2020 Dean's List at University of Virginia for four consecutive semesters
 - 2019 Intermediate Honor at University of Virginia
 - 2018 ICPC Mid-Atlantic USA Regional Contest Ranked Top 20%
 - 2017 AP Scholar with Distinction

Projects and Publications

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- **Optimal Review Ranking for Improving Shopper's Decision Making** (implementation available upon query)
 - Personalized ranking of customer reviews based on shopper's browsing history

- An average of 20% increase in user satisfaction compared to Amazon review rankings system
 - Report: http://haoranzhu.com/ir_project.pdf
- **UVA SwipeMe** (codes available upon query)
 - A meal swipes exchange website for UVA students
 - Built primarily using Django framework following agile software development standards
 - Tools used: Docker; MySQL; Apache JMeter; Kafka; Elastic Search; Travis CI; Selenium; Spark
- **UVA Craigslist** (codes available upon query)
 - A trade website for UVA students
 - URL: <http://outlawz-staging.herokuapp.com/>
 - Built primarily using Django framework following agile software development standards
 - Tools used: OAuth-based Google Sign-in

Affiliation

- 08/2017 – 05/2018 Member of Outreach Division in Chinese Student and Scholar Society (CSSS) at University of Virginia

Languages

Chinese (native), English (fluent), Japanese (intermediate)