Jack Cook

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EDUCATION

Expected 08/2024 **Master of Science** in Social Science of the Internet
University of Oxford, Oxford, UK
Rhodes Scholar

02/2023 **Master of Engineering** in Computer Science
Massachusetts Institute of Technology, Cambridge, MA
Thesis: An Effective Platform for Assessing Cognitive Health

05/2022 **Bachelor of Science** in Computer Science and Engineering
Minor in Brain and Cognitive Sciences
Massachusetts Institute of Technology, Cambridge, MA

ACADEMIC AWARDS

11/2022 **2023 Rhodes Scholarship Winner**
06/2022 MIT, Robert M. Fano Undergraduate Research Award
04/2022 Second Place, New England Hardware Security Day, Poster Session
10/2019 Selected for MIT Angles

RESEARCH EXPERIENCE

09/2019 - Present **Switchboard: Automated News Q&A with an Editor in the Loop**
Jack Cook — The New York Times

Switchboard uses two BERT-based language models to respond to reader-submitted questions about the news. It has answered over 50,000 questions about Covid-19 since its deployment in June 2020.

01/2022 - 01/2023 **An Effective Platform for Assessing Cognitive Health**
Jack Cook — MIT

For my master's thesis, I built a novel platform for assessing cognitive health in patients suspected with Alzheimer's, Parkinson's, and related dementias. Our platform will make it easier for patients to routinely complete assessments at home, and collect data that can be evaluated by medical professionals and AI.

09/2020 - 06/2022 **There's Always a Bigger Fish: A Clarifying Analysis of a Machine-Learning-Assisted Side-Channel Attack**
Jack Cook, Jules Drean, Jonathan Behrens, Mengjia Yan — MIT

We created a novel side channel to identify activity occurring in other programs on your computer. An attacker collects a trace of CPU activity

over time, and then uses a neural network to fingerprint websites opened in new tabs with accuracy as high as 96.7%.

06/2019 - 08/2019 **NeMo: a toolkit for building AI applications using Neural Modules**
Oleksii Kuchaiev, et al. — NVIDIA Research

NeMo is a popular toolkit for understanding speech and language. I specifically worked on features allowing users to pre-train and fine-tune BERT on custom tasks and datasets.

WORK EXPERIENCE

01/2023 - Present Senior Software Engineer, The New York Times R&D
02/2021 - 01/2023 Research Assistant, MIT
09/2019 - 12/2022 R&D Engineer, The New York Times R&D
06/2019 - 08/2019 Deep Learning Research Intern, NVIDIA
06/2018 - 08/2018 Software Engineer, Carbon-12 Labs
08/2016 - 03/2018 Software Engineer, Microsoft
06/2014 - 08/2016 Lead Mobile Engineer, Beam

EXTRACURRICULAR ACTIVITIES

03/2019 - 09/2020 **Director,** HackMIT

I led two iterations of HackMIT, MIT's premier collegiate hackathon, and one iteration of Blueprint, a smaller hackathon for Boston-area high school students. I instituted an admissions process to admit hackers more fairly and equitably, processed travel reimbursements for everyone who traveled from outside of Boston, managed multiple sponsorship contacts, and recruited motivational speakers, among several other administrative tasks.

10/2018 - 10/2019 **Co-director,** MIT Undergraduate Research Technology Conference

I was co-director of MIT URTC, a small IEEE-sponsored research conference, in my freshman year at MIT. I managed the relationship between MIT's EECS department and our IEEE contact, and found MIT hosts for visiting researchers, among other responsibilities.

08/2021 - 05/2022 **Peer Mentor,** Next House

I was a "peer mentor" to first-year students at my dorm, Next House, during my senior year. I offered advice and organized a few events throughout the year, such as a walk through Cambridge, and midnight pancakes after a physics midterm.