# Sam Donghyuk Kim

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## Education

**Duke University** | **Durham, N.C.** **Expected May 2021**

*B. S. in Biology, B. A. in Computer Science, Minor in Computational Biology and Bioinformatics*

- Elements of Machine Learning, Computational Genomics, Probability, Linear Algebra
- **GPA 3.95/4.00**, Dean's List with Distinction
- Credit Suisse Sustainable Impact Award, Undergraduate Research Support Assistantship, U.S. Presidential Scholarship Semifinalist

## Experience

**Software Engineering Fellow** | **U.S. Department of Defense** **Sept. 2019 – Present**

- Building iOS/Android app to replace Special Ops combat medics' outdated books with customized, up-to-date medical reference materials, using C# and Xamarin.
- Working through X-Force Fellowship at National Security Innovation Network.

**Research Assistant** | **Raluca Gordân Lab, Duke University** **Aug. 2019 – Present**

- Analyzing public genome data using Python and Bash to investigate if transcription factor-binding can prevent repair enzymes from accessing damaged DNA.

**Data Science Fellow** | **National Institutes of Health** **June – Aug. 2019**

- Led project to characterize the NIH-funded workforce in response to congressional inquiries, using grant reports and machine-learning techniques.
- Introduced non-technical team to programming, including R and tidyverse.
- Worked through Civic Digital Fellowship.

**Research Assistant** | **Duke Malaria Collaboratory** **May 2018 – May 2019**

- Analyzed epidemiological data with a log-risk regression model in R to find the best strategy for eliminating malarial "hotspots."
- Extracted genomic DNA from 3,000+ human blood and mosquito samples to uncover malaria transmission patterns, optimizing protocol in the process.

**Analysis of Campaign Finance Data** | **Sanford School of Public Policy** **Aug. – Dec. 2018**

- Reported that senior U.S. Representative received millions from corporations under their committee's jurisdiction, using analyses of Federal Election Commission records.
- Reported that their campaign spending patterns signaled worry about primary challenges.

## Activities

**Vice President** | **Association for Computing Machinery, Duke Chapter** **Apr. 2019 – Present**

- Maintaining relations with CS community, and helping recruit underrepresented students.

**Director of Development** | **Triangle Debate League** **Apr. 2019 – Present**

- Writing grants to fund the local charity, which supports underprivileged high school debaters.

**Senior Health & Science News Reporter** | **The Chronicle** **Sept. 2017 – May 2019**

- Communicated complex scientific discoveries to public in weekly stories, and edited articles.

## Skills

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| **Programming** | Python, Java, C/C++, C#, JavaScript, Bash scripting |
| **Data Analysis** | R, SQL, AWK, VBA |
| **Software** | Jupyter, Xamarin, RMarkdown, PL/SQL Developer, Git, Adobe Illustrator |
| **Interests** | certified lifeguard, amateur K-pop dancer, Sankey diagram enthusiast |