Keshav Ganapathy

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Education

University of Maryland 📅 **Expected May 2025**
Intended Bachelor of Science in Computer Science and Mathematics Minor: German 📍 *College Park, MD*
- **GPA:** 4.00/4.00

Skills

Proficient: $Python\ (Sklearn, Pandas, Numpy, Tensorflow, Pytorch) \bullet Java \bullet CSS/SASS \bullet SSML \bullet Git \bullet$ LaTeX

Familiar: $JavaScript \bullet C++ \bullet Svelte \bullet C\#$

Select Projects

WebPoint Portfolio - WebPoint | *HTML, CSS, Pug, SCSS, JavaScript* | Organization Portfolio: <u>here</u>   📅 **June 2020 - March 2021**
  * Led development of websites and oversaw three main departments: designing, programming, and marketing.
Harmony | *Svelte, WebRTC, Web Audio API, CSS, peaks.js, HTML, Pug, SCSS, JavaScript* | MIT Blueprint 2020   📅 **February 2021**
  * Created a web application in a team of 4 that allows for near-synchronous collaboration for musical education.
BrainFun | *Brainf*ck, HTML, CSS, JavaScript, Vue.js, Firebase* | Same Home Different Hacks 2020   📅 **June 2020**
  * Created a web application in a team of 4 that teaches kids logical thinking via the esoteric programming language Brainf*ck.

Work & Research Experience

University of Maryland REU-CAAR 📅 **Jun 2020 - Aug 2020, Jun 2021 - Present**
Researcher, Mentor: Tom Goldstein 📍 *College Park, MD*
  * Selected out of 30 high school students to join an undergrad team to conduct machine learning (ML) and statistics research
  * Led a team of three in ML and statistics research
  * Analyzed the ML conference review process using statistical tools, such as logistic regression models, and ANOVAs
  * Created a data set of over 8000 conference papers using the OpenReview API, Selenium, and web scraping tools
  * Co-first authored a paper presented at the ICLR 2021 townhall and selected as a lightning talk at Navigating the Broader Impacts of AI Research NeurIPS 2020 Workshop

Johns Hopkins Applied Physics Laboratory 📅 **Jun 2020 – May 2021**
ASPIRE Intern (Air and Missile Defense Sector), Mentor: Joshua McClellan 📍 *Baltimore, MD*
  * Used the Ray python reinforcement learning library to run and develop learning scenarios related to research under NDA
  * Implemented a Kalman and Moving Average Filter for noise reduction and produced a research poster comparing the filter algorithms presented at the APL ASPIRE student showcase

iZen 📅 **Jun 2019 - Aug 2019**
Intern 📍 *Palo Alto, CA*
  * Developed text to speech programs using SSML, C#, and Google Cloud's Text to Speech AI to generate roughly 6 hours of educational content on artificial intelligence and machine learning

Publications & Preprints

Tran, D.[1], Valtchanov, A.[1], **Ganapathy, K.[1]**, Feng, R.[1], Slud, E., Goldblum, M., & Goldstein, T. (2020). Analyzing the Machine Learning Conference Review Process. NeurIPS 2020 Workshop on Navigating the Broader Impacts of AI Research. arXiv preprint arXiv:2011.12919.

Ganapathy, K[1]. (2020). A Study of Genetic Algorithms for Hyperparameter Optimization of Neural Networks in Machine Translation. arXiv preprint arXiv:2009.08928.

Awards & Honors

- Recipient of the $10,000 AFCEA-CMD Merit Scholarship.
- Simons Summer Research Program 2020 Admit (8% Acceptance Rate)
- 2nd Place in Best Health Tech Hack at DefHacks Virtual 2020 (Over 1200 attendees)
- 1st (2020) & 3rd (2021) place at FBLA Regionals for Website Design, 2x State Qualifier. 4th Place Website Design FBLA State Conference, National Qualifier.
- 1st Place in Wolfram Programming at hackUMBC 2019
- QuHacks - 1st Place in 2019, 2nd Place in 2018