

Aaron Beomjun Bae

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EDUCATION

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| University of California – Irvine , Master of Science in Computer Science | Sept. 2019 – Present |
| <ul style="list-style-type: none">• Focus on Natural Language Processing Research as a Data Science Researcher• Experience in building web server architecture to communicate ml model results. | |
| University of Washington , Bachelor of Science in Mathematics | Sept. 2015 – June, 2019 |
| <ul style="list-style-type: none">• Member of the Sigma Nu Fraternity. Served as a Chapter Representative.• Impacted a student organization's recruitment process by creating an automatic resume reviewer using a machine learning algorithm. | |

EXPERIENCE

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| <u>Data Science Researcher</u>
<i>UCI DataLab</i> | March 2020 – Present |
| <ul style="list-style-type: none">• Developed a BERT-based transformer languages model that achieved 80.0 F1 score in classifying questions from a dialogue-based dataset.• Lead a team of engineers, and presented weekly reports to graduate advisors and industry managers | |
| <u>Software Engineering Researcher</u>
<i>Washington Experimental Mathematics Lab</i> | Jan. – June, 2019 |
| <ul style="list-style-type: none">• Created a probabilistic model to generate statistically independent samples of possible districting of Washington state.• Worked with a team of engineers to build a python project. | |
| <u>Website Administrator</u>
<i>Husky Snow Club</i> | Oct 2017. - March, 2018 |
| <ul style="list-style-type: none">• Worked as a website reliability administrator for Husky Snow club, a University student organization.• Worked with an engineering lead who managed the project. | |
| <u>Software Engineering Intern</u>
<i>Crowd Cow</i> | June – Sept., 2017 |
| <ul style="list-style-type: none">• Created a dashboard to display company KPIs to the management team.• Directly worked with a team of front-end and back-end engineering leads. | |

PROJECTS – AVAILABLE IN GITHUB

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| <u>Image Recognition over IoT Network</u> | 2020 |
| <ul style="list-style-type: none">• An identification system to recognize the presence of an automobile in an intersection.• Used AWS GreenGrass and MS Azure IoT to deploy MXNet and achieved 13ms latency on a Raspberry Pi.• Used Docker and AWS Lambda for deployment | |
| <u>AnaQA: Question-Answering System</u> | 2020 |
| <ul style="list-style-type: none">• Combined DrQA and DecompRC to create a new QA system for the open-domain environment.• Used Wikipedia-crawled dataset to answer questions• Performance was sub-state-of-the-art, but learned the fundamentals of language modeling• Oversaw project planning and execution | |
| <u>aaronbae.com</u> | 2018 |
| <ul style="list-style-type: none">• Personal website that shows my resume and showcases my full stack skills• Includes features like blog data entry, admin management, and HTTPS security.• A visualization feature to summarize the blog entries is in progress. Planning to use word embeddings. | |

SKILLS

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| <u>Data Modeling Skills</u> | <u>Full-Stack Skills</u> |
| <ul style="list-style-type: none">• Python, Jupyter Notebook, PyTorch, Pandas, NLTK• Basic familiarity with R and Tableau• Comprehensive understanding of CNN, LSTM, Transformers, SVM, and other common models• Extensive experience working with RoBERTa and XLNet | <ul style="list-style-type: none">• Core Frameworks: NodeJs, React, Redux, and Express• Basic Web: HTML, JavaScript, Bootstrap 4, REST• AWS Products: EC2, RDS, S3, and Lambda• Database Products: MongoDB, SQL, Apache Spark• Other: Java, Docker, Linux, SSH, and Git |