Aaron Beomjun Bae

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EDUCATION

University of California – Irvine, Master of Science in Computer Science — Sept. 2019 – Present
- Focus on Natural Language Processing Research as a Graduate Student Researcher
- Strong ability in identifying project timeline and achieving the project goals.

University of Washington, Bachelor of Science in Mathematics — Sept. 2015 – June, 2019
- 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

Graduate Researcher
UCI DataLab — March 2020. – Present
- Developed a BERT-based transformer languages model that achieved 80.0 F1 score in classifying questions from a dialogue-based dataset.
- In partnership with SAP Newport Beach, we plan to develop a meeting summarization system.

Undergraduate Researcher
Washington Experimental Mathematics Lab — Jan. – June, 2019
- Created a probabilistic model to generate statistically independent samples of possible districting of Washington state.
- Generated 60,000+ configurations and presented it to the UW Mathematics Department

Website Administrator
Husky Snow Club — Oct 2017. - March, 2018
- Worked as a website reliability administrator for Husky Snow club, a University student organization.
- Served as an officer for a school year.

Software Engineering Intern
Crowd Cow — June – Sept., 2017
- Created an office dashboard that can be specifically tailored to the users (company employees') needs. Used Ruby on Rails and SQL.

PROJECTS – AVAILABLE IN GITHUB

Image Recognition over IoT Network — 2020
- A vehicle presence identification system for low resource environment
- 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

AnaQA: Question-Answering System — 2020
- 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 management

aaronbae.com — 2018
- Personal website that shows my resume and showcases my full stack skills
- Includes features like blog data entry, admin management, and HTTPS security.
- A visualizations feature based on the embeddings of my own blog entries is in progress.

SKILLS

Data Modeling Skills
- Python, Jupyter Notebook, PyTorch, Pandas, NLTK
- Basic familiarity with R and Tableau
- Comprehensive understanding of CNN, LSTM, Transformers, SVM, and other common models
- Experience working with BERT based models like RoBERTa and XLNet

Full-Stack Skills
- **Core Frameworks**: NodeJs, React, Redux, and Express
- **Basic Web**: HTML, JavaScript, Bootstrap 4, REST
- **AWS Products**: EC2, RDS, S3, and Lambda
- **Database Products**: MangoDB, SQL, Apache Spark
- **Other**: Java, Docker, Linux, SSH, and Git