

Education

Stanford University

Sep 2018 - present

- M.S. Biomedical Informatics, expected June 2020.
- Coursework in statistical inference, computational biology algorithms, neuromorphic neural networks, patent law.

University of California, Berkeley

Sep 2014 - May 2018

- B.A. Computer Science, B.A. Cognitive Science. GPA 3.9/4.0.
- Coursework in data science, machine learning, algorithm design and analysis, data structures, machine structures, software engineering, genetics, genomics, cell biology, neurobiology, neuroscience, linear algebra, statistics, probability.

Skills

- Python (numpy, scipy, matplotlib, seaborn, pandas, tensorflow, scikit-learn, etc), Java, C, Bash, SQL.
- Django, Ruby on Rails, PostgreSQL, HTML5, CSS3, Javascript, Docker, AWS Ecosystem | Linux, Unix, Windows, Git.
- Adobe Photoshop, Adobe AfterEffects, Final Cut Pro | Native in Mandarin Chinese, English. Intermediate French.

Relevant Experience

Research Assistant, Gill Bejerano Genomics Lab, UC Berkeley, Stanford University

Nov 2018 - present

Software Engineering and Computational Modeling Intern, Koniku

Jun - Sep 2018

- Koniku merges silicon chips with synthetic neurobiology to create sensing devices far superior to electronic noses.
- Built 3 data ingestion, processing, visualization and analysis pipelines for calcium imaging and neuroelectric data on AWS.
- Built 3 full-stack web applications (Django, PostgreSQL, Elastic Beanstalk) for storage and visualization of biological data.
- Filed patent for a paradigm to systematically collect human behavioral data when exposed to stimuli and associate that with response patterns produced by Koniku's sensing device. ashtonteng.com/docs/koniku.pdf

Research Software Development Intern, Microsoft

May 2017 - Aug 2017

- Researched NLP models for question answering, used in Bing search engine to deliver concise and accurate answers directly to the user via answer boxes. ashtonteng.com/docs/microsoft.pdf
- Built competitive combined CNN & RNN attention model using Tensorflow for SQuAD question answering dataset, with 171% accuracy improvement over logistic regression baseline (EM=68.69%, F1=77.99%).

Full-Stack Developer, BerkeleyMarketPlace, UC Berkeley

Aug - Dec 2017

- Built C2C trading platform for the UC Berkeley community with Ruby on Rails+Cucumber+Capybara. Team won 1st Place and Best UX Design awards in 150-person Software Engineering class. github.com/ashtonteng/BerkeleyMarketPlace
- Rigorous Agile methodology: bi-weekly customer meetings, design, implementation, unit & integration testing.

Data Engineer, Language Exchange Program, UC Berkeley

Jan 2017 - Jan 2018

- Developed high-speed graph algorithm to match ~500 language exchange participants. Shortened 30+ hours manual process to <1 second. github.com/ashtonteng/MaxMatch

Research Assistant, Mark D'Esposito Cognitive Neuroscience Lab, UC Berkeley

Jan 2016 - Jan 2018

- Developed algorithms to analyze data from TMS+fMRI experiments to discover connectivity patterns between brain areas. OHBM 2017 Poster "The Thalamus Mediates Interactions Between Large-Scale Cortical Functional Networks".

Research Assistant, Jack Gallant Computational Neuroscience Lab, UC Berkeley

Apr 2016 - Sep 2017

- Used NLP models from fMRI data to decode language semantics representation in the brain across languages.

Leadership & Teaching

Neurotechnology at Berkeley (co-Founder, President) facebook.com/neurotechberkeley

Aug 2016 - May 2018

- Led 10-person team that plans workshops, hackathons, talks about biosensing technology for 100+ general members.

Neurotechnology Research Review Decal (Instructor) decal.berkeley.edu/courses/4068

Aug 2017 - Dec 2017

- Led weekly lectures on neuroscience data collection methods + journal club discussion of research papers.

Association of Chinese Entrepreneurs (Vice President) ace.berkeley.edu

Aug 2016 - May 2018

- Organized monthly entrepreneurship talks, startup company visits, socials. Led 2017 Startup Trip to Shenzhen and Beijing, conversations with founders of 20 influential startups including DJI, Didi Chuxing, Zhihu, ofo, SenseTime, KLOOK, Keep.