

Education

Stanford University

Sep 2018 - present

- M.S. Biomedical Informatics, expected June 2020.
- Coursework in statistics theory and applications, computational biology algorithms, neuromorphic neural networks.

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, algorithms, 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

Software Engineering and Computational Modeling Intern, Koniku

Berkeley CA, 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.
- ashtonteng.com/docs/AshtonTengKonikuFinalPresentation.pdf

Research Software Development Intern, Microsoft (Bing Core Relevance)

Sunnyvale CA, 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/AshtonTengMicrosoftFinalPresentation.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 github.com/ashtonteng/BerkeleyMarketPlace

Aug - Dec 2017

- Built a C2C trading platform exclusive to 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.
- 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, maximal matching graph algorithm to match ~500 language exchange participants. Shortened 30+ hours manual process to <1 second. github.com/ashtonteng/MaxMatch. Also automated many other time-consuming tasks.

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

- Led 10-person team that plans projects, workshops, hackathons and talks related to biosensing technology for 100+ general members. Past speakers include CEO of Neurosky, CEO of OpenBCI, Neural Dust researcher.

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

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

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

- 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.