Alexander S. Chang

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EDUCATION

Johns Hopkins University — **Baltimore, Maryland**
B.S. in Applied Mathematics and Statistics / M.S.E. in Data Science — *May 2020 / January 2022*
- **Concentrations:** Statistics and Statistical Learning (B.S.) / Computer Vision (M.S.E.); **Minor**: Economics
- **Relevant Courses**: Machine Learning, Data Mining, Applied Statistics and Data Analysis, Optimization I & II, Probability & Statistical Theory, Identifying and Capturing Markets, Professional Writing and Communication

TECHNICAL EXPERIENCES

Electronic Arts (EA) — **Remote**
Data Science Intern — *May 2020 – Present*
- Participated in cross-functional collaboration with engineers and project managers to deploy the Text Analytics Platform, allowing analysts and studios to automate the process of generating actionable insights from Twitter data
- Built topic modeling reports for FIFA Mobile, helping the team improve retention rate by 7.5% and better understand player feedback towards the game content; presented key results to relevant teams and employees up to the VP level
- Developed an algorithm to optimize the number of topic clusters and assess model results using topic coherence and Word2Vec

Hopkins Extreme Materials Institute — **Baltimore, Maryland**
Machine Learning Researcher — *August 2019 – May 2020*
- Collaborated with materials scientists to understand automation use cases and created a project roadmap accordingly
- Trained a Mask R-CNN model to classify melting zones of real time crystal growths in order to provide live, automated user feedback; incorporated metrics such as average precision to evaluate model results in Python
- Improved the output accuracy of the classification model by 2.7% by using k-Fold Cross Validation to reduce training bias

MongoDB — **New York, New York**
Growth Marketing Intern — *June 2019 – August 2019*
- Implemented A/B testing and improved conversion rate to the MongoDB Startup Accelerator landing page by 3.4%
- Generated 10+ data visualization reports for the startup customer segment using Python and Tableau; key insights were used by the Growth Marketing team to effectively position MongoDB Atlas (the fully-managed cloud database) to both paid and free tier users
- Recommended data-driven growth strategies for the MongoDB Startup Accelerator based on analyzing 500+ startups in the portfolio

Johns Hopkins Scheduling Group — **Baltimore, Maryland**
Operations Research Analyst — *February 2019 – December 2019*
- Optimized Minor League Baseball season schedules for various leagues, such as the Florida State League and the Texas League
- Built integer programs using MATLAB based on constraints in league rules regarding traveling distances and schedule restrictions
- Improved the operations process through decreasing average distance traveled by 70 miles and eliminating 3 schedule conflicts

LEADERSHIP & ACTIVITIES

EcoMap Technologies, Inc. — **Baltimore, Maryland**
Business Development Lead — *June 2018 – August 2019*
- Built a resource mapping startup to help entrepreneurs identify applicable resources for their ventures; received $70,000+ in funding and finalized letters of intent with 7 local universities in Maryland
- Developed a minimal viable product based on pain points and feedback from 30+ customer discovery interviews; pitched at conferences such as Innov8MD and the DC I-Corps program

Alpha Kappa Psi – Professional Business Fraternity — **Baltimore, Maryland**
Consulting Chair and Social Chair — *January 2018 – May 2019*
- Spearheaded the Consulting education project by teaching new members the basics of strategy consulting concepts and frameworks
- Led a team of 5 students in crafting data-driven competitor and market analyses for a local startup, increasing engagement by 20%
- Managed over $5,000 of budget to organize the chapter formals and other social events
- Focused on fostering a collaborative community by increasing average participation rate for social events by 30%

DATA SCIENCE PROJECTS

Detecting Hate Speech in Online Comments — *July 2020 – Present*
- Working under Dr. João Sedoc to develop a hate speech classifier model using BERT in order to predict hate/offensive speech based on user comments under news articles; **goal**: help organizations filter hate speech to increase user satisfaction and retention

Targeted Job Search Through Recommendations — *June 2020 – August 2020*
- Built an end-to-end job recommendation system as a web application (using Flask and HTML) after web scraping and preprocessing 6000+ Glassdoor job postings; **goal**: help students improve success rate by exploring which job descriptions are a better match

SKILLS & INTERESTS
- **Technical:** Python, R, SQL, Tableau, MATLAB, Microsoft Excel, PowerPoint, and Word
- **Skills**: bilingual fluency in English and Mandarin Chinese, team-based professional communication, business strategy
- **Interests**: DJing, music production, basketball, hip hop dancing, cooking fusion foods, robotics