# **ALEX (SANGHYEON) AHN**

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#### **EDUCATION**

## **Johns Hopkins University**

Baltimore, MD

Bachelor of Science, in Computer Science & Applied Mathematics and Statistics

Expected in May 2018

- Cumulative GPA: 3.92/4.00
- Relevant Coursework: Machine Learning, Data Mining, Parallel Programming, Web Information Retrieval, Practical Data Science, User Interface & Mobile App, Algorithms, Data Structures, Statistics, Probability, Optimization, Linear Algebra

## **EXPERIENCE**

**Escalus** Washington, DC

Software Engineer

- Dec 2016 Present • Created a baseline prediction model for legal analytics in judicial decisions made in U.S. Court of Appeals for the Federal Circuit.
- Building data ETL pipeline from various sources including web and text form data, to form an instance matrix for training a model.

### **Department of Computer Science, JHU**

Baltimore, MD

Research Assistant Aug 2016 - Present • Developed a machine learning based prediction model by scraping, modifying, and sampling raw data (from MLB Gameday) using R (PitchFx), training labeled data (~20 features & ~10,000 instances) in Python, and conducting cross-validation and ROC for evaluation.

• Constructing a model to predict the *next pitch ball type* using kernel SVM multi-class (one vs. rest) classification algorithm.

Youniv.io Baltimore, MD

Software Engineer

May 2016 - Aug 2016

- Wrote a program in JavaScript that optimally visualizes a network of multi-dimensional-nodes on HTML Canvas.
- Devised a program for producing optimized coordinates for each node and edge curve point by calculating collisions and minimizing noise.

**Standard Chartered Bank** Seoul, Korea

Data Analyst Intern

Aug 2013 - Nov 2013

- Assorted product sales data (~\$3.5billion/yr) from the database, conducting linear regression analysis for sales projections.
- Summarized recent sales trends, estimated future revenues, and identified potential target clients (sales flux over 15%) on weekly basis.

#### **PROJECTS**

# **Social Dating Matching and Clustering**

Baltimore, MD

- Modeled a predictor classifying dating candidates as potential or non-potential match based on demographic attributes and preferences.
- Constructed an ensemble learning model (online SVM and K-means clustering), enhancing prediction accuracy up to 85.2%.

Unlock Baltimore, MD

- Devised a business plan for connecting local cafes with consumers to make the process of ordering coffee efficient and interactive.
- Currently developing the front-end of the *Unlock* mobile application with react-native, and the back-end with Django.

#### **LEADERSHIP**

# Alpha Kappa Psi (Rho Psi Chapter)

Baltimore, MD

Director of Entrepreneurship (Past: Entrepreneurship Chair)

May 2016 - Present

• Organized and facilitated a business incubation project developing 3 startups from the proposal stage to investor pitch presentations.

## Department of Computer Science, JHU

Baltimore, MD

Course Assistant, Intro to Machine Learning (EN.600.475)

Jan 2017 – Present

- Created a tutorial for Scikit-learn to engage students in utilizing resources to apply machine learning tools to analyze real world datasets.
- Instructed students to understand the mathematical backgrounds and algorithmic techniques behind machine learning tools.

# **Department of Computer Science, JHU**

Baltimore, MD

Course Assistant, Data Structures (EN.600.226)

Aug 2016 - Dec 2016

- Instructed ~10 students 2 hours every week, teaching course materials and code implementations such as Red & Black Trees and graphs.
- Reviewed and debugged ~10 packages per week for grading assignments, also providing feedback on style, efficiency, and testing.

#### Center for Leadership Education, JHU

Baltimore, MD

Course Assistant, Oral Presentations (EN.661.205)

Jan 2016 - Dec 2016 • Taught classes on how to develop public speaking skills and how to utilize tools, coaching students based on their weekly presentations.

# **SKILLS**

LANGUAGES

Java (proficient), Python (proficient), C++/C (intermediate), R, JavaScript, HTML, CSS, SQL (basic)

Git, Linux, Eclipse, RStudio, MATLAB, VirtualBox, LaTeX, Microsoft Excel (proficient) **ENVIRONMENTS** 

#### **INTERESTS**