ROBERT KANG

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EDUCATION

University of Michigan   Ann Arbor, MI
Bachelor of Science Engineering in Computer Science   Aug 2019–May 2022 (Expected)
- GPA: 4.0/4.0; Dean's List
- Relevant Coursework: Data Structures and Algorithms • Intro to Computer Organization • Discrete Math • Programming and Intro Data Structures • Intro to Microprocessors • Multivariable Calculus • Linear Algebra

EXPERIENCE

comp.social Lab, University of Michigan   Ann Arbor, MI
Research Assistant   Sept 2019–Present
- Developing CrossModerator(Crossmod), a machine-learning-based alternative to current regex-based Reddit moderation bots; team of 4; written in Python. (Documentation: *https://www.crossmod.ml*/)
- Deployed bot to subreddit with 14 million subscribers (r/futurology) through AWS EC2 in real-time pilot study.
  - Automated active moderation based on Crossmod's live decisions on comments scraped by Reddit API.
- Designing/deploying 160+ GB FastText models to cloud-based RESTful API with Flask/Gunicorn to make Crossmod's Reddit-specific backend available as a general-purpose toxicity detection tool.

Atlas Digital Consulting Group, University of Michigan   Ann Arbor, MI
Project Manager   Jan 2020–Present
Analyst   Sept 2019–Dec 2019
- Coordinating team of 4 through Trello and Slack to develop *atlasdigital.org* frontend (HTML/CSS/JS).
- Primary backend developer; deployed site as Flask webapp on AWS EC2 served with Nginx/Gunicorn.
- Designing alumni/member database (SQLite/Python SQLAlchemy). Tasks include defining data model/schemas, implementing user authentication for admin panel access, building frontend interface for alumni database, developing data pipeline process for populating/updating data, and refactoring frontend with Jinja2 templating.

3M Health Information Systems   Albany, NY (Remote)
Software Engineering Intern   June 2020–Aug 2020
- Developed T*SQL process to detect individuals who are at high risk for poor outcomes if they contract COVID-19.
  - Optimized scripts to populate and load tables faster by ~70% on largest database (5 million members).
  - Productionized process into Master Schedule, which is run regularly for all 25+ HIS clients.
- Collaborated with team of 5 through TortoiseSVN and Jira while practicing Agile/Scrum methodologies.

EECS 203 (Discrete Math), University of Michigan   Ann Arbor, MI
Instructional Aide   Aug 2020–Present
- Selected as an instructional aide for a discrete mathematics course with 900+ students.
- Lead weekly discussion section of ~40 in reviewing lecture material and practicing problem-solving techniques.
- Host office hours, write/review exam/homework problem sets, manage Piazza posts, assist in online lectures.

PERSONAL PROJECTS

- **Significant Figures Calculator.** Calculator able to perform operations under proper scientific rounding rules. JFrame GUI built with aid of Eclipse WindowBuilder. Inspired by friends struggling with high school chemistry. (Java)
- **PolitiSense.** Webapp that scrapes hundreds of thousands of headlines, posts, and comments across social media platforms and performs sentiment analysis for politician approval. Submitted to PennApps XXI. (Python, HTML/CSS)
- **Piazza Classifier.** Implemented basic naïve Bayes classifier that labels Piazza posts by topic. (C++)

PROGRAMMING SKILLS

Languages: C/C++, Python, Java, HTML/CSS, Javascript, SQL
Technologies: AWS, Flask, SQLite, FastText, SQL Server Management Studio