Yunsoo Kim

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EDUCATION

University of Michigan   **Ann Arbor, MI**
B.S.E in Computer Science and Engineering   *May 2021 (expected)*
Major GPA: 4.0/4.0 ○ **Overall GPA:** 3.913/4.0
Relevant Coursework: Electronic Commerce, DS & Algorithms, Foundations of CS, Intro to Programming Languages, Intro to ML

WORK EXPERIENCE

Undergraduate Research   **Ann Arbor, MI**
Principal Investigator   *May 2019 - Present*
- Designing and implementing a non-biased method of determining the perception gap in opposing opinions.
- Tackling reported opinion perception gaps of 20%+ and eliminating 10%+ coder disagreement rates from alternative methodologies.
- Developing full-stack using Django, Python, Bootstrap, and HTML/CSS to iteratively improve the interactive web application.
- Published the web application on Heroku through its CLI with a Postgres backend and forwarded multiple domains.

Programming Language Development   **Ann Arbor, MI**
Functional Programming Lab   *January 2020 - Present*
- Implementing Hazel, a new live functional programming environment featuring typed holes.
- Collaborating with 30+ contributors to develop using a dialect of Ocaml (ReasonML).

Vivica   **Ann Arbor, MI**
Co-founder and CTO   *December 2018 - Present*
- Founded a Blockchain startup to solve opioid over-prescription and doctor shopping that caused the Opioid Crisis.
- Produced a prototype using C++ and Qt GUI and won **$9,000+** from multiple competitions such as the International Blockchain Olympiad.

Teaching Assistant   **Ann Arbor, MI**
Discrete Math and Intro to Programming   *January 2019 - Present*
- Lead sessions for 100+ students and weekly discussions of 40+ students with 900+ students enrolled for the course.
- Taught for Winter '19, Spring '19, Fall '19, and Winter '20 with every student evaluation field median score above 4.0/5.0.

Bioinformatics Research   **East Lansing, MI**
Student researcher and data analyst   *May 2016 - May 2019*
- Co-authored 6 publications in peer-reviewed journals with 3 lead authorships and replaced a decades-old evolutionary model.
- Optimized the position of zinc molecules in proteins by using JAVA to calculate 3D coordinates to be represented in PDB format.
- Visualized the statistical analysis from Python scripts using R and iGraph library.

PROJECTS

Logical Equivalence Calculator[C++]   *January 2019 - Present*
- Created a calculator that solves and explains logical equivalence problems to help EECS 203 students.
- Parsed logical equivalence expressions in a n-ary tree and minimized the number of elements.

Real-time Multiplayer Gomoku[Python, JavaScript]   *January 2020*
- Developed the game using Javascript and integrated Django and websocket using Django Channels to relay data in real-time.

Platform Independent Digital Creatures[C++, Solidity]   *May 2019 – December 2019*
- Designed and developed a decentralized system to allow permanent ownership of digital assets and creatures.
- Wrote the specs and created a C++ model for my team and later ported to Ethereum smart contracts using Solidity.

M Ticket Matcher [Python, HTML, CSS]   *August 2019*
- Centralized highly scattered student football ticket buy and sell offers with certified users.
- Used Django framework with PostgreSQL and Bootstrap with custom CSS to be deployed on Heroku.
- Hosted 50+ offers and 200+ contact requests within a month.

Awards, Achievements, and Activities

- Programming Languages: C++, Python, Java, HTML/CSS, Ocaml, Javascript, VBA
- Chosen as one of 20 Gartner Sophomore Leadership Summit Sophomore Scholars.
- Invented **2 patent-pending** items on smartphones storage and battery and reached out to the VP of Product Development of companies.
- Won **$3,000** at Terminal Live hosted by Correlation One.
- Won **$4,500+** for "Tokenized voting" project through Optimize.
- Selected as a Siemens Research Competition semifinalist from 1800+ international projects for a paper on tRNA evolution.
- Weekly volunteering at UM hospital as a member of the only philanthropic acapella group on campus.