Kyung-Wan Woo

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EDUCATION

University of California, Berkeley **Expected 12/2024**

Computer Science, Bachelor of Arts

- **Distinctions: DeepLearning.AI Specialization, 1st place** in 2020 Kolmogorov Mathematics Contest; 2018 Outstanding Cambridge Learner Award
- **Relevant Coursework:** Internet Architectures and Protocols (CS 168); Programming Languages and Compilers (CS 164); Algorithmic Economics (CS C177); Software Engineering (CS 169A); Computer Security (CS 161); Efficient Algorithms (CS 170); Computer Architecture (CS61C); Discrete Mathematics and Probability Theory (CS 70); Data Structures & Algorithms (CS 61B); Structure and Interpretation of Computer Programs (CS 61A)
- **Activities: TA** @ CS 169A; **Project Lead** @ Codify Berkeley; **VP** @ LikeLion Berkeley; **Senior Mentor** @ CSM Berkeley

SKILLS

PyTorch, TensorFlow, Python, Java, C/C++, JavaScript, TypeScript, Go, Ruby on Rails, React.js, Next.js, AWS, SQL, MongoDB, Firebase

EXPERIENCE

Google Machine Learning Bootcamp 6/2023 - Current
Google for Developers South Korea Remote

- Completed the Deep Learning Specialization course by Andrew Ng on Coursera, covering deep learning theories and industry insights.
- (prospective) Participating in Kaggle Competitions, applying skills to real-world data science challenges and collaborating with global peers.
- (prospective) Engaging in Gemma Sprint projects, developing lightweight open models using Gemini and delivering final outputs on Hugging Face platform.

Teaching Assistant, Software Engineering (CS 169A) 5/2024 – Current
University of California, Berkeley Berkeley, CA

- Led weekly 6hr discussion sections and project review sessions for 50+ students, focusing on software engineering principles and practices.
- Held office hours to assist students with conceptual questions, project guidance, and debugging issues.
- Covered Agile vs. Plan-and-Document methodologies, Ruby programming, Rails applications, RESTful SaaS, BDD, TDD, app security and performance.

Software Engineer Intern 5/2024 - 8/2024
CAMI Health Sacramento, CA

- Developed a Python program to categorize 5,000 contacts from the Constant Contact database, reducing 10 hours of manual sorting time to just a few seconds.
- Improved sorting accuracy by incorporating company names and email address domains, achieving a 95% accuracy rate based on team feedback.

Software Engineer 6/2023 – 5/2024
WittGen Biotechnologies Berkeley, CA

- Developed a web portal using React.js and AWS, enabling authenticated users to upload genomic data files and apply for ML-based cancer cell diagnosis.
- Crafted AWS Lambda functions for efficient S3 file upload handling and compression, reducing storage footprint and costs.
- Implemented an AWS SNS-driven email notification system for user alerts and tested on 800+ DynamoDB file uploads successfully.
- Enhanced security by adjusting permissions of the AWS IAM roles for authenticated users, avoiding the embedded credentials in code.

Project Lead 9/2023 – 5/2024
Homies Berkeley, CA

- Managed the Codify team in reforming Homies' platform, introducing a profile management feature that utilizes PostgreSQL for data handling.
- Refined the user experience by implementing a routing system that guides new users through an onboarding process.
- Enhanced users' public profiles by enabling picture uploads to DigitalOcean Spaces via Next.js API, fostering a more interactive community for 300+ users.

Software Engineer Intern 6/2023 - 8/2023
Samsung Electronics Seoul, South Korea

- Developed an AI-assisted image annotation program with Python by integrating Meta AI's Segment Anything model and 'labelme' open-source tool.
- Engineered text prompts for Stable, Versatile and Uni-Diffusion models from Hugging Face to test ~100,000 text-to-image and dual-guided generations.
- Crafted a step-by-step guide for local setup of Hugging Face's libraries and model pipelines, significant saving time in data preparation phases.

Academic Intern, Data Structures & Algorithms (CS 61B) 5/2022 - 5/2023
University of California, Berkeley Berkeley, CA

- Automated lab content updates for over 800 students via Slack API and Python backend, slashing TA-hours by >95%.
- Supported weekly 9hr lab sections of 150+ students to advise on debugging Java programs and reinforce understanding of data structures and algorithms concepts.