Amelia Wissink

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Education

- **Columbia University in the City of New York** — New York, NY
  B.S., Computer Science; GPA: 3.75/4.00 — *Sep. 2020 – May 2024*
- **Relevant Coursework:** Data Structures and Algorithms, Computer Systems, Linear Algebra, Advanced Programming, Discrete Math, Computer Science Theory, Artificial Intelligence, Natural Language Processing, Computer Vision, Advanced Database Systems, Accessible User Interface Design

Experience

- **Google** — New York, NY
  Software Engineering Intern — *May 2023 - Aug. 2023*
  - Designed, implemented, and tested an end-to-end feature to improve the dish-browsing experience at restaurants on Google Search for a product with nearly 1.8 million daily users
  - Wrote peer-reviewed technical design documents for the feature, integrating feedback from cross-functional teams under Google Search
  - Developed a C++ program to fetch feature data from the Knowledge Graph, Google's database of billions of facts about people, places, and things
  - Earned first place for the most impactful project at the Search Intern Presentation Competition
- **Columbia University** — New York, NY
  Teaching Assistant — *Sep. 2021 - May 2023*
  - Wrote Python script to automatically update remaining assignment grace days for students, reducing gradebook updating time by over 90%
  - Spearheaded Java Labs, a supplementary seminar taken alongside Columbia's introductory computer science course that is designed to level the playing field for students who do not have prior programming experience
  - Designed and administered weekly Java Labs lectures and held office hours for classes of 400+ students
  - Courses: Introduction to Programming in Java, Data Structures and Algorithms, Introduction to Databases
- **Google** — San Bruno, CA
  STEP Intern — *May 2022 - Aug. 2022*
  - Developed a scalable tool to automatically generate documentation for end-to-end metrics used across YouTube product areas, significantly reducing the overall time spent searching for critical metric information
  - Wrote and solicited feedback on a design document for a protocol buffer to store end-to-end metric metadata, collaborating across several site reliability teams to do so
  - Designed, implemented, and tested an inspection script to programatically extract metadata from Go files and convert it into a human readable format such that the data can be easily viewed and queried
- **Girls Who Code** — Remote
  Teaching Assistant — *Jun. 2021 - Aug. 2021*
  - Taught a web development curriculum in HTML, CSS, and JavaScript to a cohort of female-identifying high school students
  - Cultivated a supportive classroom culture by leading advisory meetings 3 times a week and holding frequent office hours
  - Collaborated with partner companies such as AT&T, Accenture, and Snap to hold engaging events for students

Technical Skills

- **Languages:** Java, Python, C, C++, Go, HTML, CSS, JavaScript, Swift, Unix/Bash
- **Libraries and Frameworks:** TensorFlow, PyTorch, Pandas, GPT-3
- **Databases:** MySQL, MongoDB, Neo4j

Projects

- **Information Extraction System:** Used SpanBERT and GPT-3 to implement the iterative set expansion algorithm for information extraction, fetching relational tuples from unstructured documents on the Internet based on a user query.
- **DCGAN on MNIST Dataset:** Implemented a deep convolutional GAN using PyTorch to generate different images from the MNIST dataset. Designed architectures for discriminator and generator using convolutional and linear layers.
- **2048 Solver:** Designed and implemented a 2048 solver in Python using the expectiminimax adversarial search algorithm with alpha-beta pruning to generate move logic. 6/10 runs were consistently able to reach 2048.

Additional Experience and Awards

- **Campus Involvement:** Undergraduate Scholars Program (C.P. Davis Scholar), Society of Women Engineers, Women in Computer Science, Alpha Chi Omega
- **Awards:** Dean's List (Spring 2021, Fall 2020), SEAS Summer Design Challenge Finalist (2020), NCWIT Aspirations in Computing Award National Honorable Mention (2020)
- **Personal Interests:** Reading, writing, cooking, yoga, bullet journaling