# NOBLE WULFFRAAT

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### **EDUCATION**

University of Illinois at Urbana-Champaign

Graduated: Aug 2023

Major: Mathematics Minor: Computer Science

### WORK EXPERIENCE

### Walmart - Global Tech

Jun 2021 - Aug 2021

Software Engineer Intern

- · Developed a proof of concept for a Bluetooth Low Energy (BLE) point-of-sale pairing system to reduce friction in the Walmart Pay checkout experience on Android devices.
- · Developed solutions in Java and Kotlin for Android API limitations in BLE-enabled applications.
- · Extensively tested embedded device configurations for optimal BLE signal reception.
- · Contributed enhancements to the Walmart Pay backend in Typescript.

## Illinois Geometry Lab

Aug 2020 - May 2021

Student Researcher

- · Worked with team on library development for the Lean programming language and proof assistant.
- · Focused on developing a library for encoding proofs in the field of model theory.

# UIUC Undergrad. Research in Engineering (PURE Program)

Sep 2019 - Dec 2019

Student Researcher

- · Worked on development of siamese neural networks for text-independent speaker identification and used transfer learning approaches to apply the model to speaker diarization tasks.
- · Implemented pre-existing statistical models for comparison.
- · Primarily developed models using PyTorch and Python data science libraries.

### **PROJECTS**

### Optiprof - Course Recommendation Tool

Collaborated with a small team on the development of a course recommendation tool which combines historical grade data, professor ratings, and user-given constraints to allow students to generate highly optimized course schedules. Primarily contributed a Python web-scraper for gathering data and the Django backend.

### TECHNICAL SKILLS

Languages Python, Java, Kotlin, Javascript, Typescript, SQL, HTML, CSS, Lean

Technologies Django, PyTorch, Pandas, Jest, Node.js, Android, Git, PostgreSQL, MongoDB

### HIGHLIGHTED COURSEWORK

Computer Science [CS 411] Database Systems, [CS 225] Data Structures,

[CS 374] Algorithms and Models of Computation,

[CS 233] Computer Architecture, [CS 357] Numerical Methods I

Mathematics [MATH 416/415] Abstract/Applied Linear Algebra,

[MATH 241] Multivariable Calc, [MATH 213] Discrete Structures

[STAT 400] Statistics and Probability I, [STAT 420] Applied Statistics

[MATH 482] Linear Programming and Optimization