

Nicholai Dimov

☎ (973) 544-8171 | ✉ ndimov@wustl.edu | 🏠 ndimov.com | 📱 [ndimov](#)

Education

Washington University in St. Louis

St. Louis, MO

B.S. IN COMPUTER SCIENCE AND MATHEMATICS, DOUBLE MAJOR IN FINANCIAL ENGINEERING, MINOR IN LINGUISTICS

Expected May 2024

- Overall GPA 4.00/4.00, Arthur Holly Compton Fellow (Full-tuition merit scholarship), Dean's List all semesters
- Relevant Coursework: Data Structures and Algorithms, Linear Algebra, Modern Algebra, Differential Equations, Probability and Statistics, Systems Software, Time Series Analysis, Optimization, Machine Learning, Number Theory and Cryptography, Financial Mathematics, Programming Systems and Languages, Natural Language Processing, Financial Accounting, Capital Markets and Financial Management

Experience

Meta

Seattle, WA

SOFTWARE ENGINEERING INTERN

May — Aug 2022

- Optimized placement of datacenter server racks for each fiscal quarter in 20+ global regions, ensuring minimized waste of limited power capacity
- Removed manual intervention as datacenter capacity grows 3x via novel optimization framework making models easy to write, debug, and reuse
- Improved organization code quality by adding unit tests, streamlining datacenter models, ensuring consistent typing
- Lowered size of mixed integer linear programming model by 40%, reducing computational load of 200+ runs per day

MealMe

San Francisco, CA

SOFTWARE ENGINEERING INTERN

Jun — Aug 2021

- Architected and built REST APIs in Python and Flask that handle 100k+ orders across dozens of food ordering platforms
- Cut customer service usage by 70% with new tooling as revenue increased by 300% over 2 months
- Overhauled user experience for cancelled orders with automated refunds, MealMe Bank deposits, and emails

Washington University in St. Louis

St. Louis, MO

UNDERGRADUATE TEACHING ASSISTANT FOR CSE 247 (DATA STRUCTURES AND ALGORITHMS)

Jan — May 2021

- Taught students asymptotic analysis as a method to determine scalability and effectiveness of solutions to algorithmic problems
- Led interactive group studios, weekly office hours, and graded written lab writeups for this class with 300+ students

II-VI Advanced Materials

Pine Brook, NJ

RESEARCH & DEVELOPMENT INTERN

Jun — Aug 2019

- Spearheaded investigation into the efficiency of a new process for producing different types of single-crystal silicon carbide wafers
- Performed production flow analysis in Minitab to optimize the acquisition of multimillion-dollar machines

Personal Projects

Course Chat Linker (<https://ndimov.com/course-linker>)

- Website in React, Express, and Node.JS used by hundreds of students to search for, join, and upload group chats for each of their classes
- Integrates seamlessly with WashU's course catalog and student schedules
- Supports chat commands via GroupMe's API, legacy data via Google Spreadsheets, and interfacing with MongoDB

Eco2Go Tracker (<https://github.com/ndimov/eco2go-tracker>)

- Winner at Caltech's Hacktech 2021 as best Environment & Sustainability Hack
- Created dynamic front-end UI in React using Material UI for logging returns of reusable Eco2Go containers and leaderboards of top students
- Wrote backend data integrations and architected database schema with Firebase and Cloud Firestore

Leadership

WashU Puzzle Club

St. Louis, MO

PRESIDENT AND FOUNDER

2021 — present

- Select and lead diverse activities during weekly meetings that match members' interests in crosswords, logic puzzles, and more
- Organize and manage weekend-long team puzzlehunt competitions

Awards

Putnam – Top 250 on most prestigious university-level proof-based math exam
ICPC – Led team to qualify for 2021 North American Division Championship
Math Kangaroo – 1st place nationally for 8 years in a row. Invited as 1 of 10 Americans to Zakopane Math Camp in Poland, all expenses paid
USAJMO – 2019 Qualifier, from top 0.05% nationally (250 students)
USACO – Gold Division, ranking in top 500 of pre-college participants nationally
Bloomberg Summer of Puzzles 2020 – 2nd place winner

Skills

Languages

Python, C++, Ruby, SQL, TypeScript, JavaScript, Java, HTML, CSS, Go, Bash Scripting

Technologies

AWS, Git, Docker, Linux, MongoDB, Firebase, Django, React, Node.js, Express.js, PostgreSQL, R, \LaTeX