Nicholas Novak

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Goal

To work on a strong engineering-focused team, writing performant and correct low-level code to power large systems that operate at scale

Education

- **Occidental College**, Los Angeles, Graduated May 2024
  - Degree: Bachelor of Arts in Computer Science and Economics (GPA: 3.6)
  - Theses: SpatialDB: A three-dimensional database, An Analysis of Policy-Based Responses to Power Demand
  - Coursework:
    - CS: Data Structures, Computer Organization, Cryptography, Networking
    - Math: Derivative, Integral, Multivariable Calculus, Discrete Math, Linear Algebra, Statistics
    - Economics: Micro+Macro Economics, International Economics, Game Theory, Behavioral Economics
- **California Institute of Technology**, Los Angeles, Non-Degree Exchange 2022-2024
  - Coursework: Distributed Computing, Functional Programming, Algorithmic Economics, Automata-Theoretic Software Analysis
- **University of Edinburgh CoL**, 2023 Summer Session

Work Experience

- **Occidental College**, Los Angeles, California, Teacher's Assistant, Senior Web Developer 2022-present
  - Taught students fundamental computer science concepts for the Data Structures and Computer Organization courses
  - Mentored future and prospective CompSci students in planning out goals for the major and their courses
  - Maintained the school's newspaper for 4 years as the sole developer, and trained the junior developer
- **Occidental College, Computer Science Club**, Los Angeles, California, Club President, 2024
  - As the club president, led a team to recruit and plan events that improved the inclusiveness of the CS community, and reached 30+ students weekly.
  - Ran a Kubernetes cluster in order to host open-source projects that the club and I developed and maintained
- **Flexport**, San Francisco, California, Software Development Intern, Summer 2022
  - Wrote front-end React code on the customs gateway team for an internal dashboard serving customs brokers
  - The feature that I wrote was released into production and improved the workflow and clicks for several commonly used features
- **RBO & Co.**, St. Helena, California, Investment Intern, Spring 2021
  - Performed research on various client investment opportunities within the firm
- **Offset Partners**, Napa, California, Summer Intern, Summer 2019
  - Wrote websites for a variety of website clients in JavaScript, HTML and CSS, working with designers and web developers to add ecommerce and improve accessibility

Highlighted Projects

- **Java to Go transpiler**
  - Wrote a 3k+ line program with the goal of converting large existing Java programs to Go code automatically
- **Uxn Virtual Machine**
  - Wrote an emulator for a small stack-based virtual machine in Go
  - Later, for a class project, implemented it in CUDA on an Nvidia GPU

Skills

- Languages - Go, Python, Java, Rust, C, SQL, Haskell, HTML+CSS, JavaScript
- Frameworks - Linux, Docker, Kubernetes, Flask, React, Web, SQLite, WordPress, CUDA, Distributed Systems

Honors

- Boy Scouts of America, Eagle Scout