

# BENJAMIN NGUYEN

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## EDUCATION

### Rutgers University

New Brunswick, NJ

Bachelor of Science in Computer Science, Minor in Business Administration

Expected December 2024

- **GPA:** 3.412/4.0
- **Major Coursework:** Data Structures, Computer Architecture, Design and Analysis of Computer Algorithms, Software Methodology, Internet Technology, Introduction to Data Science, Systems Programming, Discrete Structures
- **Minor Coursework:** Financial Accounting, Managerial Accounting, Introduction to Finance. Business Analytics

## TECHNICAL SKILLS

**Languages:** Java, Python, C, SQL (Postgres, MySQL), JavaScript, HTML/CSS, Swift, LaTeX

**Frameworks:** Bootstrap 5, JavaFX, Apache HaDooop, Scikit-Learn

**Libraries:** React.js, Node.js, Pandas, NumPy, Matplotlib, BeautifulSoup

**Developer Tools:** Git, VIM, Eclipse, Linux, Wireshark, Xcode, Android Studio

**Concepts:** Objected-Oriented Programming, Data Analytics, Network Protocols, System Design, Data Mining

## EXPERIENCES

### Lead Web Developer

July 2024 – Present

TEDxWilmington

Remote

- Spearheading the design and development of **3+** websites to enhance online presence and interactive platforms.
- Managing security protocols and ongoing maintenance for smooth performance and vulnerability protection.
- Conducting **UX** research to tailor website designs to audience, location, and specific event needs.
- Increasing monthly average viewership to **10,000** by leveraging user data, traffic patterns, and analytics.
- Providing ongoing technical support and troubleshooting for website issues, securing **99.9%** uptime.

### Software Engineer Fellow

October 2024 – Present

Blueprint

New Brunswick, NJ

- Engineering responsive web applications using **React.js** to deploy to **Vercel**, ensuring efficient performance.
- Collaborating in cross-functional teams utilizing **agile** and **SCRUM** methodologies for development.
- Optimizing applications scalability by creating reusable components and strategies for high-traffic environments.

### Software Developer Intern

June 2024 – August 2024

PulseTech

New Brunswick, NJ

- Developed **iOS** applications with Apple Watch compatibility, focusing on health ambient computing for automatic tracking.
- Integrated multiple health frameworks for users to manipulate and track **15+** health metrics in real-time.
- Worked with designers and health professionals to enhance user experience in compliance with industry standards.
- Led a team of two interns, overseeing their onboarding and ensuring successful integration into ongoing projects.

## SOFTWARE PROJECTS

### MyShell: Minimalistic Unix Shell | C, POSIX, Linux, Makefiles, Git

- Built a Unix-like shell supporting interactive prompts, batch processing, and tokenized command parsing for user input.
- Implemented process creation and management using fork and exec, enabling execution of external commands with pipelines.
- Designed features like wildcard expansion and error handling, with efficient file redirection through dup2 and system calls.

### Collaborative Filtering for Recommendation Tasks | Python, Pandas, NumPy, Matplotlib, Scikit-learn,

- Engineered a user-based collaborative filtering recommendation system, leveraging matrix factorization and cosine similarity measures to predict user preferences.
- Processed and cleaned large-scale e-commerce datasets, splitting them into training and testing sets for efficient and reliable model evaluation.
- Designed and evaluated recommendation performance using metrics like **MAE**, **RMSE**, precision, recall, and **NDCG**, optimizing the algorithm for accuracy and scalability.

### BuyMe Auction Site | Java, JavaScript, HTML, MySQL, JDBC, Tomcat, Git

- Led a team to engineer a local online auction platform with automatic bidding and account management.
- Developed multiple threads in **Java** to refresh and update auction listings, improving timing accuracy by **85%**.
- Adapted hash-tables and caching, reducing search times by **25%**.