BRIAN HE

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EDUCATION

Rutgers University, School of Engineering   **New Brunswick, NJ**
Bachelor of Science in Computer Engineering, Minor in Computer Science   *September 2020 – May 2024*
- *GPA: 3.95/4.00* | Dean's List | Tau Beta Pi Engineering Honor Society | IEEE VEXU Robotics
- Relevant Coursework: Analog Electronics, Digital Systems Design, Network Security, Software Engineering, Programming Languages, Computer Algorithms, Data Structures, Computer Systems, Computer Architecture, Discrete Mathematics, Probability, Linear Algebra, Multivariable Calculus, Differential Equations, and Statistics

PROFESSIONAL EXPERIENCE

Rutgers Blueprint   **New Brunswick, NJ**
Software Engineering Fellow   *February 2023 – May 2023*
- Built websites through various individual projects, leveraging **React** libraries to implement hooks for state management and data exchange between site components, using **HTML**, **React**, and **JavaScript**
- Collaborated with 2 other fellows to develop a custom webpage with integrated external APIs to improve site interactivity, which was then presented to 20+ industry professionals

Robert Wood Johnson University Hospital / Rutgers MBS Externship Exchange   **New Brunswick, NJ**
Data Analytics Extern   *September 2021 – December 2021*
- Coded a feature using **Python** libraries that generates visualization models and interactive analysis reports, improving RWJ pediatricians' ability to discern patient and caregiver preferences in treating inactive juvenile idiopathic arthritis
- Collaborated with the project team to develop data-cleansing algorithms that support variable filtering and outlier detection to remove irrelevant, incorrect, or invalid information, reducing provided survey data size by 21%

PROJECT EXPERIENCE

Analog Circuit Design Project, *14:332:463 – Analog Electronics*   *October 2023 – December 2023*
- Designed and simulated a high-performance two-stage op-amp using IBM CMOS 7RF technology in **Virtuoso**, **Cadence**
- Computed design equations to estimate DC currents and transistor sizes, followed by tuning and optimization of circuit parameters via simulation to meet required design specifications and achieve a 15% increase in operational efficiency

Tempting Tastes, *Personal Project*   *June 2023 – August 2023*
- Developed a mock restaurant website with **Node.js** and **React**, featuring a landing page, interactive menu, about section, a streamlined contact feature, and an order management system with cart functionality, delivering an interactive UX

RBuild, *14:332:452 – Software Engineering*   *January 2023 – May 2023*
- Partnered with 9 other teammates to build a website that recommends PC parts based on users' preferred specifications
- Integrated **Stripe API** to simulate secure payment processing and conducted thorough API testing with **Postman**
- Led as the frontend developer on the team, which involved designing the user experience, troubleshooting UI bugs, and implementing a real-time chat feature, using **socket.io**, **JavaScript**, **HTML**, and **CSS**

Accessory, *Personal Project*   *July 2022 – December 2022*
- Developed a productivity-enhancing website using **Python** and **HTML** designed to store and provide easy access to users' essential and frequently referenced information
- Established a back-end storage system for secure user login information to ensure data confidentiality using **SQL**
- Improved user experience with cross-platform accessibility and site responsiveness using **CSS** and **JavaScript** libraries

WORK EXPERIENCE

Best Buy   **East Brunswick, NJ**
Retail Sales Associate   *August 2023 – Present*
- Illustrated product knowledge to assist customers in product selection, driving sales through personalized interactions, suggestive selling techniques, and prompt resolution of customer inquiries with an efficiency of over 85%

Walmart Supercenter   **Freehold, NJ**
Retail Associate   *July 2021 – March 2022*
- Collaborated with coworkers to reach established sales goals across 3 departments by the end of each shift

SKILLS

Technical Skills: Java, MATLAB, C, JavaScript, React, HTML, CSS, Bootstrap, SQL, Python, Postman, SystemVerilog
Tools & Technologies: Cadence Virtuoso and Spectre, Quartus, FPGA, Google Workspace, Microsoft Office Suite, Git
Languages: Fluent in Fuzhounese, Conversational Mandarin, Conversational Korean