

Tarun Boddupalli

US Citizen

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EDUCATION

Rutgers University, *New Brunswick, NJ*. B.S. Computer Science, Minor in Mathematics

GPA: 3.7

Coursework: Data/Discrete Structures, Design & Analysis of Algorithms, Computer Architecture, Operating Systems, Software Methodology, Databases, Computer Security, Internet Technology

Honors: Dean's List

Edison High School, *Edison, NJ*.

GPA: 3.8

Awards: National Honors Society, Science National Honors Society, AP Scholar with Distinction, PSAT/NMSQT Commendation

SKILLS

Languages: Java, HTML5/CSS3/JS, Python, C, C++, Ruby, Bash, Kotlin, SQL

Technologies: Node.js, React/React Native, MongoDB, MySQL, Ruby on Rails

WORK EXPERIENCE

Full Stack Software Engineer at [Aersys, Inc.](#), Piscataway, NJ. (11/19 - Present)

- Developing systems software to operate an automated robotic parcel management solution
- Creating UIs for dashboards and mobile applications using React.js, React Native, and Node.js
- Designing and implementing a scalable publisher-subscriber architecture in Kotlin for communications between an array of hardware devices
- Using C/C++ to interface with robotics sensors and controllers, filtering sensor data with Kalman filters to perform low-latency motorized operations
- Using Python + OpenCV and machine-learning techniques like CNNs and Haar Cascades for computer vision applications in object and text detection
- Managed two interns over the course of a summer internship program

Student Programmer at [Rutgers Lab of CS Research](#), Piscataway, NJ. (10/18 - Present)

- Part of a team that maintains Rutgers AutoLab, a web application that university students and faculty use to organize computer science courses and assignments
- Programming in Ruby with the Ruby On Rails framework paired with a MySQL database
- Using Docker to manage and run the different services required for the website
- Writing scripts in Python and Bash to automate regular workflows and application deployment procedures
- Previously (from 10/18 - 5/20) maintained and optimized (up to 200% improvement in some cases) SignStream, a desktop application written in Java that provides ASL video annotation capabilities
- Programmed in Java using the Swing desktop framework

Computer Technician Summer Intern at *Edison Twp. BOE*, Edison, NJ. (7/16 - 8/18)

- Troubleshooted critical anomalies for school district hardware
- Updated system software in accordance with state and federal guidelines
- Wrote scripts to automate tasks which enabled the district to complete device provisioning ahead of schedule (sped up daily workflow for the entire school district by 50%).

PROJECTS

[IsThatGuyInMyClass](#) (featured in district newspaper)

- Led a group of 3 in creating a webapp to show students their classmates for the upcoming semester
- Learned about graph search algorithms, storing data in a MongoDB persistence layer, and authenticating users with JSON Web Tokens
- Optimized the Node.js backend to handle traffic from over 400 unique users on a Heroku free tier

[eLaser](#) (Won four prizes)

- Worked with a partner to develop a presentation tool that translates accelerometer data from a mobile device into display positions for a visual marker (functions as a laser pointer)
- Used vanilla JS and websockets for low-latency communication between the presentation device and the user's smartphone, as third-party libraries added too much overhead
- Implemented a real-time Q&A system to query audience feedback quickly and easily

[Dr!ve](#) (Won Intel's Code For Good award)

- Worked with a team of four to create a mobile app that alerts distracted drivers at the wheel
- Using Intel's RealSense 3D camera and its SDK, wrote C# code to track eyelid movements and assess whether a driver is falling asleep or potentially intoxicated.