JAEYOUNG (JASON) PAK

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SKILLS

Languages (in order of proficiency): Java, Javascript, HTML/CSS, C, Python, Bash, C++
Frameworks (in order of proficiency): Git, ReactJS, React Native, Node.js, AWS, Android Studio

EDUCATION

Dartmouth College Hanover, NH | **Sep 2020 - Present**
Bachelor of Arts, Computer Science and Music **GPA: 3.98**

- **Honors**: Neukom Institute for Computational Science Scholar, Rufus Choate Scholar (Top 5% Honor Group), Academic Citation for Meritorious Performance
- **Coursework**: Software Design & Implementation, Full-Stack Web Development, Algorithms, Discrete Mathematics, Problem Solving via Object Oriented Programming, Design Thinking, Foundations of Applied CS, AR/VR Development

Thomas Jefferson High School for Science and Technology Alexandria, VA | **Sep 2016 – Jun 2020**
Advanced Studies Diploma **GPA: 4.44**

EXPERIENCE

MathWorks Natick, MA | **Jan 2022 – Mar 2022**
Incoming Engineering Development Group (EDG) Intern

Digital Applied Learning and Innovation (DALI) Lab Hanover, NH | **Sep 2021 – Present**
Software Engineer & Dev Mentor

- Built software products for companies under 10-week deadlines in Dartmouth's tech-entrepreneurial program
- Built a video-calling app in **React Native** where users can anonymize their voice during mental health coaching sessions
- Built a full-stack web application using **React & MongoDB** to help ranchers monitor cattle weight during calving cycles
- Learned **Ruby on Rails** to debug the codebase for a sexual violence prevention program used by incoming first-years
- Developed a mobile app in **React Native** that uses data from **Apple Healthkit** to gamify and personalize exercise for users
- Promoted to **Mentor** immediately following my first project in the lab — now I work as the **lead developer** on projects, mentor new members, communicate development updates to the project partners, and review new member applications

Dartmouth CS Department Hanover, NH | **Mar 2021 – Present**
Teaching Assistant for CS-10: Object-Oriented Programming

- Led office hours/recitation periods to **debug student code** and answer questions about coding concepts and data structures
- Graded assignments and exams by providing valuable feedback that encourages time and memory efficient code

Vitalize Inc. Remote | **Jun 2021 – Dec 2021**
Full-Stack Developer

- Developed the first public beta of a wellness app tailored to healthcare professionals by learning **React-Native**
- Built a backend **API server** using **Node.js, Express, and mongoDB** to handle CRUD calls for app functionality
- Reduced server load by using **Amazon S3** to store all files uploaded by users in the app's group messaging feature
- Built an analytics webpage using **React** that allows the company to observe how users interact with the app's features

PERSONAL PROJECTS

Doodlegram | https://github.com/JY2452/doodlegram-FE

- Built a full-stack social media site from scratch using **React** where users can create and share doodles with other users
- Developed a CRUD **API server** using **Node.js, Express, and mongoDB** to fetch and store user data in a database
- Reduced server load by using **Amazon S3** to store the image files of the doodles created by users

Personal Website | https://github.com/JY2452/jasonpak.me

- Built a personal website using **React** to create a digital portfolio showcasing my skills in web and mobile development
- **Self-taught UI/UX** through online resources and **designed wireframes** to construct a cohesive, facile, and interactive site

Minesweeper | https://github.com/JY2452/minesweeper

- Built a Minesweeper clone in Java from scratch with full functionality (right-click to flag, different levels, sound effects, etc.)
- Wrote a function to store and sort user scores in a text file to display the best solve times on a high scores page
- **Reproduced the Minesweeper expansion algorithm** by recursively checking neighboring tiles during gameplay

Bot-thoven | https://github.com/JY2452/bot-thoven **|** *Nominated for 2021 Hackaday Prize – "Redefine Robots"*

- **Self-taught Arduino programming** to build a xylophone-playing robot that can perform any desired tune
- Wrote a program that controls the rotation of servomotors so that the xylophone keys can be struck at different volume levels, sensitivities, and articulations
- Shared the project resources to an online repository of hardware projects and reached over a **thousand views**