

Julia Zdzilowska

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EDUCATION

Brown University | Providence, RI, USA

Cumulative GPA: 4.0/4.0

B.Sc. Computer Science: Software Engineering and Visual Computing

Coursework: OO Programming, Data Structures & Algorithms, OS Design & Development, Software Engineering, Full Stack Development, UX/UI Design, ANNs & Deep Learning, 3D Modeling, Statistics, Computational Analysis of Big Data, Business-Tech

Certificates: *Digital Marketing* [Google | Jan 2024]; *Brand Management* [University of London | Oct 2023]; *Foundations of UX Design* [Google | Nov 2022]; *Introduction to ML* [Duke University | May 2021]; *Python Programming* [U. of Michigan | Oct 2022]

PROFESSIONAL EXPERIENCE

Backend Development Intern | Tryp.com

September 2024 – December 2024

- Managed integration and maintenance of 10+ external APIs with Python. Automated data retrieval, scraping and bypassing rate limits, formatting and validating JSON/CSV data (BeautifulSoup/Requests), and aligning it with company schema to retrieve data across 2000+ travel providers. Updated and cached directed transportation graphs for 70M+ tickets for reduced load times. Optimized expiry policies.
- Integrated relational databases with PostgreSQL. Developed schemas to model station connections. Designed dynamic queries for storing and retrieval of available connections (psycopg2).

Frontend Developer | GreenCarLane

September 2024 – December 2024

- Modernized the company's website with TS (React, Vue), HTML, and Tailwind. Refactored 5000+ lines of code for DRY practices.
- Increased responsiveness (introduced media queries, fluid grids, SVG files, shadow DOMs) and scalability (React Hooks, AJAX).
- Revised state management (Redux, Context API) for data consistency. Interacted with a NoSQL database using Mongoose.
- Collaborated with the design team. Managed version control & software development team's concurrent development with Git.

Full Stack Developer | Self-Employed

March 2017 – August 2024

- Developed 20+ full-stack web apps using JS (React, Node, Express), Java, HTML (+CSS), and RESTful APIs (+AXIOS).
- Integrated MongoDB for eCommerce database management; optimized static site performance with caching and lazy loading.
- Applied Agile and TDD methodologies; automated testing with JUnit, Playwright, Pytest, and Docker, ensuring 90% code coverage.
- Managed version control & development history with Git; organized dependencies with Maven, deployed via Render and Vercel.

Product Development Intern, Digital Marketing Intern | Logcast/Oshi

May 2024 – August 2024

- Led prototyping and created wireframes (Figma, Adobe XD) for creator payout panel, gifts/subscription features, in-app economy.
- Led ambassador onboarding panels (each with 5M+ likes on TT) and social media marketing campaigns (~25% app usage increase).

Software Engineering Teaching Assistant | Brown University

January 2024 – May 2024

- Hosted office hours for 200+ students to provide debugging help and answer conceptual/technical questions; resolved technical issues with development and deployment tools; modernized past course material; graded 50+ coding & design reflection assignments.
- Mentored the development of a personalized purchase platform and interactive campus accessibility map (TS, Java, HTML).

Web Developer, Brand Designer, Founder | Moonlit Heavens

April 2023 – October 2023

- Developed the brand's website (JS, HTML5, Java). Designed the logo, packaging, fonts; rendered mockups (Illustrator, InDesign).
- Executed 10+ product launches, oversaw supply chains, coordinated creative and sales teams; led a 4-person marketing team.
- Automated newsletter via MailChimp, improved sales performance with SEO, targeted customer preferences via Google Analytics.

PERSONAL PROJECTS

Driver Drowsiness Detection System | Python (TensorFlow, Keras, Pandas)

December 2024

Developed a real-time DDS using a CNN with a VGG16 backbone. Preprocessed the training dataset (extracted frames from drowsy/alert videos), augmented for balance, labeled. Introduced a dense classification head with L1-L2 regularization, optimized with categorical cross-entropy; mitigated overfitting with dropout and frozen base layers. Extracted facial regions with Haar cascades. Enabled real-time predictions with annotated outputs on webcam through OpenCV. Achieved 98% testing & validation accuracy.

Collaboration Section Manager | Java, Typescript, React, CSS, HTML

October 2024

Created a university office hours management platform. Implemented concurrent pairing algorithms and role-based authentication, RESTful APIs for real-time updates, dynamic UIs for issue-based matching of students to course instructors. Integrated hashed databases for tracking students' collab sessions and encountered issues; enabled record extraction depending on access permissions.

Couture Vault | JavaScript, HTML, CSS, MongoDB, Docker

May 2024

Developed a MERN-stack-based wardrobe management hypermedia app. Implemented node (clothing item) insertion to database, removal, edition, anchoring (for item clustering; personal feed recommendation), trails (of recently viewed items), search, image bounding-box-to-item linking (outfit creation), outfit randomization by criteria, public comments. Restricted access via a log-in feature. Scraped storefront information for item details. Debugged HTTP requests with Postman. Deployed with Vercel and Render.

SKILLS & TECHNICAL TOOLS

Programming Languages: Python (Keras/Pytorch/Tensorflow/Pandas), Java, JavaScript(+TS), HTML/CSS/Tailwind, C, PostgreSQL

Tools: Git, Node.js, Express.js, MongoDB, Maven, Render, Vercel, Playwright, JUnit, jQuery, GDB, pgAdmin, Docker, Linux, IntelliJ, VSCode, AdobeCC (Dreamweaver, XD, InDesign, Photoshop), MailChimp, Google Analytics, Sprout Social, MSOffice