JULIA G. PAPP

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EXPERIENCE

Microsoft

Software Engineer | ES365 Automation Results Intelligence Team | *New York, NY* **May 2025 - Present**

- Built and integrated custom APIs into CI/CD pipelines with managed identities and service connections, ensuring security compliance, eliminating manual triggers, improving fault tolerance, and accelerating delivery
- Designed and implemented infrastructure-as-code Bicep templates to provision Azure Function Apps and API management, enabling secure, automated deployments across environments
- Technologies utilized: C#, Bicep, Azure Resource Manager, YAML, KustoQL

Software Engineer Intern | ES365 Automation Team | *Redmond, WA* **May - Aug. 2024**

- Developed a robust in-place debugging solution that streamlined multi-machine topology reservations, eliminating the need to recreate debugging environments from scratch which resulted in a 30% boost in efficiency
- Leveraged C# and ASP.NET Core model binding to develop an interface displaying available virtual machines
- Ensured code reliability by achieving 100% test coverage using AAA mock testing within the .NET framework
- Technologies utilized: C#, ASP.NET, JavaScript, SQL

Hack4Impact at Cornell University | *Ithaca, NY*

Engineering Chair | Core Leads **Jan. - Dec. 2024**

- Ensured technical success of all teams within Hack4Impact by mentoring tech leads, PMs, and developers
- Led onboarding and tech workshops for members to ensure confidence with different tech stacks and version control
- Technologies utilized: Python, MongoDB, Express.JS, React.JS, Node.JS, Java, Git/GitHub

Software Developer | Environmental Data and Governance Initiative (EDGI) **Sept. - Dec. 2023**

- Developed webpage for the nonprofit EDGI to display facility violations in multiple industries across all US counties
- Implemented interactive mapping to visualize county-based Environmental Protection Act violation data
- Technologies utilized: Python, React.JS, TypeScript, Streamlit

Cornell Bowers College of Computing and Information Science | *Ithaca, NY*

Teaching Assistant | CS 2850: Networks **Sept. 2023 - Dec. 2024**

- Instructed applying graph & game theory to analyze networks in computing, economic, and sociological contexts
- Fostered comprehension of concepts including web dynamics, market dynamics, contagion, and network evolution

Teaching Assistant | CS 4820: Analysis of Algorithms **Jun. - Aug. 2023**

- Instructed on algorithm design techniques such as greedy algorithms, divide-and-conquer, DP, and network flow
- Guided students on proof of correctness construction for intractable problems and NP-completeness

EDUCATION

Cornell University, College of Arts and Sciences | *Ithaca, NY* **August 2021 - December 2024**

Bachelor of Arts in Computer Science

- *Minors in Data Science and Information Science (Concentration in Networks, Crowds, and Markets)*

Relevant Coursework:

- Machine Learning, Natural Language Processing, Databases, Artificial Intelligence, OO Programming & Data Structures, Designing Fair Algorithms, Information Retrieval, Functional Programming, Algorithms Analysis
- Discrete Structures, Probability Models and Inference, Linear Algebra, Calculus I-III

Honors: Dean's List

PROJECTS

Author Explorer | Find Your Favorite Authors **Spring 2024**

- Developed an ad-hoc information retrieval system to suggest authors based on user input using minimum edit distance, TF-IDF, and cosine similarity on book reviews from Goodreads with 4 other software engineers
- Incorporated SVD for dimensionality reduction and improved similarity scores, enhancing user experience with dynamic author suggestions and genre-based similarity interpretations
- Technologies utilized: Python, HTML, CSS, JavaScript

Algorithmic Equity Audit: Disaster Recovery Grant Analysis | Road Home Audit **Spring 2024**

- Conducted a comprehensive feature importance analysis using Random Forest and Gradient Boost models to evaluate the impact of aid distribution on marginalized communities post-Hurricane Katrina
- Analyzed the relationship between demographics and aid with statistical parity, calibration, and demographic balance
- Technologies utilized: Python, scikit-learn