# James H. Cate, Jr.

1804 Fraternity Park Drive
Knoxville TN, 37916
**(423)-779-6332**
**JamesCate@mediumjames.com**

## Education

**University of Tennessee at Knoxville** — *Honors B.S. in Computer Science* **December '18**
*Minors in Business Administration and Cybersecurity; GPA: 3.79*

Chancellor's Honors
Engineering Honors
Tau Beta Pi Engineering Honors Society
Concentration in Artificial Intelligence, Pattern Classification, Communication, and Business Success
Member of VolHacks, Chess Club, and Phi Kappa Psi Social Fraternity

## Experience

**Cloud Engineer —** *Clayton Homes: Maryville, TN* **Summer '18 – present**

Hired as intern to analyze and document the rationale behind company's modernization push, specifically their migration to Amazon Web Services. Transitioned to part-time, and then full-time within the year. Assisted in the creation and fulfillment of security and infrastructure standards. Created and prepared numerous accounts for use in a complex system. Aided in architecting base account structure, permissions, networking, and tool-chain integration such as deployment and source control. Authored resource templates, scripts for mass deployment and system scanning, and numerous confluence documentation pages for various audiences including managers, engineers, developers, and trainees.

**Software Engineer —** *Engineering Mentor Program: UTK; Various Other* **Summer '16 – present**

Worked with the Tickle College of Engineering and The Society of Women Engineers to create and bring to marketplace a cross-platform mobile application to facilitate increasing the college's retention rate. Automated data collection and mentor matching while also providing a portal to encourage accountability and communication. Planned, developed, and tested both AWS backend and React frontend. Authored honors thesis focusing on cloud resources and UI/UX for the project. Additionally, developed web-based, macOS, and mobile applications for daily personal use. Work includes chess clock, password manager, augmented reality navigation tool, virtual reality platforming, and more minor projects.

**Research Assistant** — *Nonlinear Biodynamics Lab: UTK* **Summer '17 – Summer '18**

Worked with EEG signal processing for many brain control interfaces and devices. Developed GUIs for donor presentations and interdisciplinary data collection. Made existing code and resulting filesystem clean, organized, and portable for other labs university-wide. Maintained research database. Formulated, tested, and improved Machine Learning algorithms. Worked with Oculus Rift, Unity, Simulink, and extensively with MatLab. Presented at UTK's Join the Journey campaign launch and research exposition EURēCA 2018.

## Skills

**Toolkit**
Expert with Office Suite
Proficient with Adobe Suite
LaTex, Lucidchart
Jira and Confluence
Git / BitBucket, SVN
VSCode, Xcode, MatLab, JMP
NumPy, SciPy, Pandas, SKLearn, MatPlotLib
Node.js, React.js, Amplify.js, Expo.js
Amazon Web Services: CloudFormation, EC2, Lambda, SQS, SNS, S3, RDS, DynamoDB, Cognito, IAM, Config, CloudTrail, CloudWatch, VPC, Route53, API Gateway, and CloudFront

**Languages**
Advanced in C, C++, Python, HTML5/CSS3, Java, JavaScript, and MatLab/Simulink
Comfortable in Swift, C#, and R
Elementary PHP and SQL ability

**Soft Skills**
Self-starting and motivated
Perseverant and respectful
Curious and analytic
Reinforced by responsibility
Reliable decision maker
Empathetic team leader